

# MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

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# DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)
DURO-LAST Roofing, Inc.
525 Morley Drive
Saginaw, MI 48601

#### **SCOPE:**

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

**DESCRIPTION:** DURO-LAST Single Ply PVC Roof Systems over Recover Decks.

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA No. 13-0402.08 and consists of pages 1 through 81. The submitted documentation was reviewed by Jorge L. Acebo.



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#### **ROOFING SYSTEM APPROVAL**

Category:RoofingSub-Category:Single PlyMaterials:PVCDeck Type:Recover

Maximum Design Pressure: See Specific System Herein

# TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

| <u>Product</u>                        | <u>Dimensions</u>  | Test<br>Specification | Product <u>Description</u>   |
|---------------------------------------|--|-----------------------|--|
| Duro-Last Membrane                    | .037" thick, fabricated in sheets up to 3000 sq. ft.       | ASTM D4434            | PVC polymer blend polyester reinforced roofing membrane.                         |
| Duro-Last Membrane                    | .045" thick,<br>fabricated in sheets<br>up to 2000 sq. ft. | ASTM D4434            | PVC polymer blend polyester reinforced roofing membrane                          |
| Duro-Last Membrane                    | .057" thick,<br>fabricated in sheets<br>up to 1800 sq. ft. | ASTM D4434            | PVC polymer blend polyester reinforced roofing membrane                          |
| Duro-Last Designer<br>Series Membrane | .045" thick<br>Various widths &<br>lengths                 | ASTM D4434            | PVC polymer blend polyester reinforced roofing membrane: Rock-Ply & Shingle-Ply. |
| Duro-Fleece Membrane                  | .047" thick,.<br>Various widths x<br>100 ft. rolls         | ASTM D4434            | PVC polymer blend polyester reinforced fleece backed roofing membrane.           |
| Duro-Fleece Membrane                  | .056" thick,<br>Various widths x<br>80 ft. rolls           | ASTM D4434            | PVC polymer blend polyester reinforced fleece backed roofing membrane.           |
| Duro-Fleece Membrane                  | .080" thick Various widths x 65 ft. rolls                  | ASTM D4434            | PVC polymer blend polyester reinforced fleece backed roofing membrane.           |
| Duro-Fleece Plus<br>Membrane          | .047" thick, .<br>Various widths x<br>100 ft. rolls        | ASTM D4434            | PVC polymer blend polyester reinforced fleece backed roofing membrane.           |
| Duro-Fleece Plus<br>Membrane          | .056" thick,<br>Various widths x<br>100 ft. rolls          | ASTM D4434            | PVC polymer blend polyester reinforced fleece backed roofing membrane.           |
| Duro-Tuff Membrane                    | .045" thick<br>Vaious widths x<br>100 ft. rolls            | ASTM D4434            | PVC polymer blend polyester reinforced roofing membrane                          |
| Duro-Tuff Membrane                    | .056" thick<br>Various widths v<br>100 ft. rolls           | ASTM D4434            | PVC polymer blend polyester reinforced roofing membrane                          |
| Duro-Tuff Membrane                    | .080" thick<br>Various widths v<br>100 ft. rolls           | ASTM D4434            | PVC polymer blend polyester reinforced roofing membrane.                         |



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| <b>Product</b>                           | Dimensions   | Test<br>Specification | Product Description  |
|--|--|-----------------------|--|
| Duro-Last Fascia Bar                     | 1 <sup>3</sup> / <sub>4</sub> " x 10';                         | Proprietary           | Extruded vinyl drip edge with holes  |
| Duro-Last Fascia Bar<br>Cover            | 4" x 10'<br>1 <sup>3</sup> / <sub>4</sub> " x 10';<br>4" x 10' | Proprietary           | punched 8" o.c.<br>Extruded decorative cover for Duro-Last<br>Fascia Bar   |
| Duro-Last Fascia                         | 2" & 4"  | TAS 111               | Kynar finish Galvalume, 24 ga., cover  |
| Duro-Last Snap Coping                    | 12"  | TAS 111               | Kynar finish Galvalume, 24 ga., coping   |
| Duro-Last 2-Piece Metal "T-Edge"         |  | TAS 111               | Kynar finish Galvalume, 24 ga., with vinyl skirt   |
| Duro-Last 2-Piece<br>Compression Edge    |  | TAS 111               | Kynar finish Galvalume, 24 ga.   |
| Duro-Last Vinyl Coated<br>Metal          | 4' x 10' .043" thick   | G-90                  | G-90 galvanized steel, laminated with Duro-Last Vinyl Film.  |
| Duro-Last Drip Edge                      | 2" face x 10';<br>4" face x 10';                               | Proprietary           | Extruded vinyl drip edge with holes punched 8" o.c.  |
| Duro-Last Two-Way<br>Roof Vents          |  | Proprietary           | Injection molded two-way roof vents with a Duro-Last membrane skirt.   |
| Duro-Last Gravel Stop                    | 2" face x 10';<br>4" face x 10';                               | Proprietary           | Extruded vinyl gravel stop with holes punched 8" o.c.  |
| Roof-Trak III Walk Pads                  | 30" x 60"<br>.125" thick                                       | Proprietary           | Extruded vinyl walk way pads manufactured from Duro-Last membrane.   |
| Duro-Last WB II<br>Adhesive              | 5 gal. pail  | Proprietary           | Polymeric waterborne membrane adhesive.  |
| Duro-Last SB IV                          | 5 gal. pail  | Proprietary           | Low VOC solvent-based membrane adhesive.   |
| Duro-Fleece Membrane<br>Adhesive         | 10 gal.  | Proprietary           | Two-component membrane adhesive.   |
| Duro-Fleece CR-20<br>Adhesive            | Kit covers 2,000 ft <sup>2</sup>                               | Proprietary           | Dual component, low-rise polyurethane foam adhesive.   |
| Millennium One Step<br>Foamable Adhesive |  | Proprietary           | Dual component, low-rise polyurethane foam adhesive.   |
| Insta Stik                               |  | Proprietary           | Dual component, low-rise polyurethane foam adhesive.   |
| OlyBond 500                              |  | Proprietary           | Dual component, low-rise polyurethane foam adhesive.   |
| Duro-Last Tab Sealer<br>4725             | 5 gal.   | Proprietary           | Solvent-based contact-bonding agent.   |
| Duro-Blue                                | 4 mil x 20' x 360';<br>4 mil x 20'x 100'                       | Proprietary           | Separation slip sheet produced from coextruded polyethylene film.  |
| Duro-Weave                               | 2.5 mil x 12' x<br>328'  | Proprietary           | Separation slip sheet produced from high<br>density polyethylene tapes and coated on<br>one side with low density polyethylene |



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| <u>Product</u>        | <u>Dimensions</u> | Test<br>Specification | Product<br><u>Description</u>  |
|-----------------------|-------------------|-----------------------|--|
| Duro-Last Accessories | Various           | ASTM D 4434           | Custom fabricated accessories for parapets and penetrations: Curb flashing, Inside & Outside Corner, Scuppers, Drain Boot, Parapet Flashing, Stack Flashing; all for use in the Duro-Last roofing systems. |

## **APPROVED INSULATIONS:**

#### TABLE 2

| Product Name   | <b>Product Description</b>   | Manufacturer (With Current NOA)             |
|--|--|---|
| AC Foam II, AC Foam III  | Polyisocyanurate foam insulation   | Atlas Roofing Corp.                         |
| ISO 95+ GL   | Polyisocyanurate foam insulation   | Firestone Building Products<br>Company, LLC |
| EPS  | Type IX Expanded polystyrene with a minimum density of 1.8 pcf                                       | Generic                                     |
| XPS  | Type IV Extruded polystyrene with a minimum density of 1.6 pcf                                       | Generic                                     |
| Type X Gypsum  | Gypsum with a moisture resistant facer and core.   | Generic                                     |
| DensDeck, DensDeck Prime   | Silicon treated gypsum   | Georgia-Pacific Gypsum LLC                  |
| ENRGY-3, ENRGY-3 25 PSI,   | Polyisocyanurate foam insulation   | Johns Manville                              |
| Multi-Max-3, Multi-Max FA-3  | Polyisocyanurate foam insulation   | Rmax Operating, LLC                         |
| H-Shield, H-Shield CG  | Polyisocyanurate foam insulation   | Hunter Panels, LLC                          |
| SECUROCK Gypsum-Fiber Roof<br>Board  | Rigid, gypsum-based board stock  | United States Gypsum<br>Corporation         |
| SECUROCK Glass-Mat Roof Board  | Gypsum roof board with fiberglass facer  | United States Gypsum Corporation            |
| Duro-Fold Underlayment Board   | Extruded polystyrene with polypropylene facer  | Duro-Last Roofing, Inc.                     |
| Duro-Guard Iso II-H & Tapered,<br>Duro-Guard Iso III-H & Tapered,<br>Duro-Guard HD-H, Duro-Guard Iso<br>Composite-H        | Polyisocyanurate foam insulation   | Duro-Last Roofing, Inc.                     |
| Duro-Guard Iso II-A & Tapered,<br>Duro-Guard Iso III-A & Tapered,<br>Duro-Guard Iso IV-A & Tapered,<br>Duro-Guard Iso HD-A | Polyisocyanurate foam insulation   | Duro-Last Roofing, Inc.                     |
| Duro-Guard ISO II-G & Tapered  | Polyisocyanurate insulation with   | Duro-Last Roofing, Inc.                     |
| Duro-Guard ISO III-G & Tapered   | fiberglass reinforced organic facers<br>Polyisocyanurate insulation with<br>coated fiberglass facers | Duro-Last Roofing, Inc                      |



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#### **APPROVED INSULATIONS:**

#### TABLE 2

| Product Name         | <b>Product Description</b>   | Manufacturer<br>(With Current NOA) |
|----------------------|--|------------------------------------|
| Duro-Guard ISO HD-G  | High density polyisocyanurate insulation with coated fibergalss facers | Duro-Last Roofing, Inc             |
| Duro-Guard ISO HDP-G | High density polyisocyanurate insulation with coated fiberglass facers | Duro-Last Roofing, Inc             |
| R-Tech Fan Fold      | Type IX Expanded polystyrene with polymeric facers                     | Insulfoam LLC                      |

## **APPROVED FASTENERS:**

#### TABLE 3

| Fastener<br>Number | Product<br>Name   | Product<br>Description  | Dimensions               | Manufacturer<br>(With Current NOA) |
|--------------------|---|---|--------------------------|------------------------------------|
| 1.                 | Duro-Last Duro-Coated<br>Hex Head Screws                  | Roofing and insulation fasteners, Duro-Coated with #3 Phillips head.  | Various<br>Lengths       | Duro-Last Roofing, Inc.            |
| 2.                 | Duro-Last 3"Metal<br>Plates                               | Galvalume steel stress plates.  | 3" square                | Duro-Last Roofing, Inc.            |
| 3.                 | Duro-Last Poly-plates                                     | Round plastic stress plates.  | 2" round                 | Duro-Last Roofing, Inc.            |
| 4.                 | Polymer GypTec  | Glass-filled nylon auger type fastener  | Various<br>Lengths       | OMG, Inc.                          |
| 5.                 | Polymer GypTec<br>Insulation Plates                       | Galvalume steel stress plates.  | 3" round                 | OMG, Inc.                          |
| 6.                 | OMG Fluted Nail   | Coated Steel fluted shank nail insulation fasteners.  | Various<br>Lengths       | OMG, Inc.                          |
| 7.                 | OMG Plastic Plate   | Round plastic stress plates.  | 3" round                 | OMG, Inc.                          |
| 8.                 | Duro-Last #15 Extra<br>Heavy Duty Drill Point<br>Fastener | Corrosion resistant, drill point with a #3 Phillips truss head  | Various<br>Lengths       | Duro-Last Roofing, Inc.            |
| 9.                 | Duro-Last #14 Concrete<br>Screws                          | Corrosion resistant, drill point fastener with #3 Phillips head.  | Various<br>Lengths       | Duro-Last Roofing, Inc.            |
| 10.                | Duro-Last Fluted<br>Concrete Nails                        | Corrosion resistant, 0.22" shank with a flat top pan head.  | Various<br>Lengths       | Duro-Last Roofing, Inc.            |
| 11.                | Trufast #12 Purlin<br>Fastener                            | Carbon steel screw with #3 square drive, modified truss head and long pilot-point for use in min. 18 ga. steel purlin. TruKote epoxy coating. | #12 x 8-3/4" max. length | Altenloh, Brinck & Co. U.S., Inc.  |



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## **APPROVED FASTENERS:**

## TABLE 3

| Fastener<br>Number | Product<br>Name                       | Product<br>Description  | Dimensions                    | Manufacturer<br>(With Current NOA) |
|--------------------|---------------------------------------|---|-------------------------------|------------------------------------|
| 12.                | Duro-Last #14 HD<br>Fasteners         | Roofing and insulation fasteners, Duro-Coated with #3 Phillips head.  | Various                       | Duro-Last Roofing, Inc.            |
| 13.                | Duro-Last Cleat Plates                | 0.035" thick galvalume stress plate                                   | 2-3/8"                        | Duro-Last Roofing, Inc.            |
| 14.                | Trufast 3" Metal<br>Insulation Plate  | Round stress plate with reinforcing ribs                              | 3" round                      | Altenloh, Brinck & Co. U.S., Inc.  |
| 15.                | Trufast DP #12 Fasteners              | Carbon steel screw with #3<br>Phillips drive                          | #12 x 8" max. length          | Altenloh, Brinck & Co. U.S., Inc.  |
| 16.                | Duro-Bond Plate 1302                  | Round, coated galvalume plate (Gold and Black)                        | 3" round                      | Duro-Last Roofing, Inc.            |
| 17.                | Eyehook Seam Plate                    | Stress plates   | 2-3/8"                        | OMG, Inc.                          |
| 18.                | Twin Loc-Nail                         | Three piece preassembled fastener/plate unit                          | 2.7" plate x 4.8" max. length | ES Products, Inc.                  |
| 19.                | Duro-Last Auger Plates                | 2" metal plate for use Duro-<br>Last Auger Fastener                   | 2" round                      | Duro-Last Roofing, Inc             |
| 20.                | Duro-Last Auger<br>Fastener           | Glass-filled nylon fastener<br>for use with Duro-Last<br>Auger Plates | Various lengths               | Duro-Last Roofing, Inc.            |
| 21.                | Duro-Last Liquid Auger<br>Fastener    | <u> </u>  | Various<br>Lengths            | Duro-Last Roofing, Inc.            |
| 22.                | OMG XHD                               | Carbon steel fastener with #3 phillips head                           | Various lengths               | OMG, Inc.                          |
| 23.                | Duro-Last #15 Extra<br>Heavy fastener | Carbon steel fastener with #3 phillips head                           | Various lengths               | Duro-Last Roofing, Inc.            |



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## **EVIDENCE SUBMITTED:**

| Test Agency/Identifier          | <u>Name</u>     | Report                | <b>Date</b> |
|---------------------------------|-----------------|-----------------------|-------------|
| Architectural Testing, Inc.     | C0713.01-109-18 | TAS 114(J)            | 03/05/13    |
| Factory Mutual Research Corp.   | J.I. 3Y5A6.AM   | FM 4470               | 06/30/10    |
| •                               | J.I. 2M4A8 .AM  | FM 4470               | 03/05/87    |
|                                 | J.I. 3Y5A6.AM   | FM 4470               | 03/10/95    |
|                                 | J.I. 1X2A7 .AM  | FM 4470               | 08/90/99    |
|                                 | J.I 1X8A8.AM    | FM 4470               | 08/31/07    |
|                                 | AD6A4.AM        | FM 4470               | 08/09/99    |
|                                 | 3005604         | FM 4470               | 03/13/00    |
|                                 | 3008342         | FM 4470               | 10/19/00    |
|                                 | 3026508         | FM 4470               | 05/03/07    |
|                                 | 3015816         | FM 4470               | 01/09/03    |
|                                 | 3010289         | FM 4470               | 04/13/01    |
|                                 | 3040346         | FM 4470               | 09/28/11    |
|                                 | 3040741         | FM 4470               | 12/02/11    |
|                                 | 3028306         | FM 4470               | 08/03/09    |
|                                 | 3037919         | FM 4470               | 05/12/10    |
|                                 | 3023458         | FM 4470               | 07/18/06    |
|                                 | 3012321         | FM 4470               | 07/29/02    |
|                                 | 3032172         | FM 4470               | 06/12/09    |
|                                 | 3010987         | FM 4470               | 04/23/02    |
|                                 | 3047477         | FM 4470               | 10/03/12    |
|                                 | 3006989         | FM 4470               | 02/09/01    |
|                                 | 3014929         | FM 4470               | 05/23/03    |
|                                 | 3014692         | FM 4470               | 08/05/03    |
|                                 | 3044466         | FM 4470               | 11/07/12    |
| IRT-ARCON, Inc.                 | 02-025          | TAS 114               | 07/24/02    |
| Exterior Research & Design, LLC | #02733.01.05-1  | FM 4470/TAS 114       | 01/21/05    |
|                                 | #02744.05.06    | FM 4470/TAS 114       | 05/17/06    |
|                                 | 02732.09.04     | ASTM D4434            | 09/28/04    |
|                                 | 02742.10.05     | TAS 117(A) & (B)      | 10/12/05    |
|                                 | 0237.03.05.01   | FM 4470/TAS 114       | 03/21/05    |
|                                 | 02745.08.06     | TAS 117(A)            | 08/04/06    |
| Trinity ERD                     | 02750.02.08-R2  | ASTM D4434 / AC75     | 08/03/12    |
|                                 | D42370.07.12    | ASTM D1084 / TAS 117  | 07/11/12    |
|                                 | D35210.08.11-R1 | ASTM D4434            | 09/17/12    |
|                                 | D6760.08.07     | FM 4470/TAS 114       | 08/01/07    |
|                                 | C8500SC.11.07   | TAS 117(B)            | 11/30/07    |
|                                 | D35210.08.11-R3 | ASTM D4434            | 03/29/13    |
|                                 | D40260.03.13-1  | ASTM D4434            | 03/29/13    |
|                                 | D40280.03.13    | ASTM D4434            | 03/13/13    |
|                                 | D41660.11.12-R2 | TAS 114(D & J)        | 03/25/13    |
|                                 | D42320.08.12    | TAS 114(J)/TAS 117(A) | 08/21/12    |
|                                 | D42390.10.12-R1 | TAS 114(J)            | 10/03/12    |
|                                 | D43030.1.13-R1  | TAS 114(J)/TAS 117(A) | 10/02/13    |



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## **EVIDENCE SUBMITTED: (Continued)**

| Test Agency/Identifier             | <u>Name</u>          | <b>Report</b>      | <b>Date</b> |
|------------------------------------|----------------------|--------------------|-------------|
| Trinity ERD                        | D44450.05.13-2       | ASTM D4434         | 05/10/13    |
| Intertek Testing Services, NA Inc. | 3119586-001          | TAS 111            | 07/10/07    |
| PRI Construction Materials         | DLRI-013-02-01       | TAS 114(J)         | 08/28/12    |
| Technologies, LLC                  | DLRI-014-02-01       | TAS 114(J)         | 08/28/12    |
|                                    | DLRI-029-02-01       | TAS 114(J)         | 10/25/12    |
|                                    | DLRI-030-02-01       | TAS 114(D)         | 04/01/13    |
|                                    | DLRI-045-02-01       | TAS 114(D)         | 08/24/13    |
|                                    | DLRI-045-02-02       | TAS 114(D)         | 09/13/13    |
|                                    | DLRI-047-02-01       | TAS 114(J)         | 08/24/13    |
|                                    | DLRI-068-02-01.1     | TAS 114(D)         | 07/28/14    |
|                                    | DLRI-073-02-01.1     | TAS 114(D)         | 04/23/15    |
|                                    | DLRI-077-02-01       | TAS 114 (D)        | 04/07/15    |
|                                    | DLRI-021-02-01 Rev 8 | ASTM D1876 & D1761 | 04/23/15    |
|                                    |                      | TAS 117(A) & (B)   |             |
|                                    |                      | TAS 114(D)         |             |
| Underwriters Laboratories          | R10128               | UL790              | 03/31/15    |
|                                    | R11183               | UL723              | 11/19/09    |
| RADCO                              | RAD-5135             | ASTM C578          | 05/02/12    |



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#### **APPROVED ASSEMBLIES:**

**Membrane Type:** Single Ply, PVC

**Deck Type 7I:** Recover, Insulated

**Deck Description:** 18-22 ga. steel

System Type A(1): All layers of insulation fully adhered with approved adhesive; membrane fully

adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

| Insulation Layer                             | <b>Insulation Fasteners</b> | Fastener                |
|--|-----------------------------|-------------------------|
|  | (Table 3)                   | Density/ft <sup>2</sup> |
| SECUROCK Gypsum-Fiber Roof Board or DensDeck |                             |                         |
| Maximum 1" thick                             | N/A                         | N/A                     |

Note: Layers of insulation shall be adhered to substrate with Duro-Fleece Membrane Adhesive applied in continuous ¾ in. wide ribbons spaced 6 in. o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Duro-Fleece or Duro-Fleece Plus membrane fully adhered with Duro-Last WB II

Adhesive applied at 100 ft<sup>2</sup>/gal. Laps are sealed with a minimum 1.5" wide heat

weld. Or

Duro-Fleece or Duro-Fleece Plus membrane fully adhered with Duro-Fleece CR-20 applied at 8 lbs./100-ft<sup>2</sup> in "splatter" pattern. Laps are sealed with a minimum

1.5" wide heat

Or

Duro-Tuff or Duro-Last membrane fully adhered with Duro-Last SB IV Adhesive applied at 60ft<sup>2</sup>/gal total coverage. Laps are sealed with a minimum 1.5" wide

heat weld.

Or

Duro-Tuff or Duro-Last membrane fully adhered with Duro-Last WB II Adhesive applied at 140 ft<sup>2</sup>/gal. Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -45 psf. (See General Limitation #9)



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**Deck Description:** Concrete

Minimum 1.5" thick

System Type A(2): One or more layers of insulation adhered with approved adhesive over existing

asphaltic BUR; membrane fully adhered with approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft $^2$  AC Foam II, H-Shield, Duro-Guard Iso II-H, Duro-Guard Iso II-A, Duro-Guard Iso II-G

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Consity/ft²

ACFoam II, Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-G, Duro-Guard Iso III-H

Minimum 1/2" thick N/A N/A

DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board

Minimum 1/4" thick N/A N/A

Duro-Guard Iso HD-A, Duro-Guard Iso HD-G, Duro-Guard Iso HD- H Minimum 1/2" thick N/A

D 1 1 2 /44 4 4 4 1 1 1

N/A

N/A

N/A

Note: Layers of insulation shall be adhered with OlyBond 500 applied in  $\frac{3}{4}$ " – 1"ribbons spaced 12-inch. o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Duro-Fleece or Duro-Fleece Plus membrane fully adhered with Duro-Last WB II

Adhesive applied at 100 ft²/gal. Laps are sealed with a minimum 1.5" wide heat

weld. Or

Duro-Fleece or Duro-Fleece Plus membrane fully adhered with Duro-Fleece CR-20 applied at 8 lbs./100-ft² in "splatter" pattern. Laps are sealed with a minimum

1.5" wide heat

Or

Duro-Tuff or Duro-Last membrane fully adhered with Duro-Last SB IV Adhesive applied at 60ft²/gal total coverage. Laps are sealed with a minimum 1.5" wide heat weld.

Or

Duro-Tuff or Duro-Last membrane fully adhered with Duro-Last WB II Adhesive applied at 140 ft<sup>2</sup>/gal. Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -112.5 psf. (See General Limitation #9)



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**Deck Description:** Concrete

**System Type A(3):** One or more layers of insulation adhered with approved adhesive over existing

asphaltic BUR; membrane fully adhered with approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Consity/ft²

Multi-Max FA-3, AC Foam III, Duro-Guard Iso III-A, ISO 95+ GL

Minimum 1.5" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

**SECUROCK Gypsum-Fiber Roof Board** 

Minimum 1/4" thick N/A N/A

Note: Layers of insulation shall be adhered with TITESET Roofing Adhesive applied in continuous 1.5 inch wide ribbon in rows spaced 12-inch. o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Duro-Fleece or Duro-Fleece Plus membrane fully adhered with Duro-Last WB II

Adhesive applied at 100 ft<sup>2</sup>/gal. Laps are sealed with a minimum 1.5" wide heat

weld. Or

Duro-Fleece or Duro-Fleece Plus membrane fully adhered with Duro-Fleece CR-20 applied at 8 lbs./100-ft² in "splatter" pattern. Laps are sealed with a minimum

1.5" wide heat

Or

Duro-Tuff or Duro-Last membrane fully adhered with Duro-Last SB IV Adhesive applied at 60ft<sup>2</sup>/gal total coverage. Laps are sealed with a minimum 1.5" wide

heat weld.

Or

Duro-Tuff or Duro-Last membrane fully adhered with Duro-Last WB II Adhesive applied at 140 ft<sup>2</sup>/gal. Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -240 psf. (See General Limitation #9)



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**Deck Description:** Concrete

**System Type A(4):** One or more layers of insulation adhered with approved adhesive over existing

asphaltic BUR; membrane fully adhered with approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

| Base Insulation Layer            | Insulation Fasteners (Table 3)    | Fastener Density/ft <sup>2</sup>    |
|----------------------------------|-----------------------------------|-------------------------------------|
| AC Foam II, Duro-Guard Iso II-A  | ,                                 | ·                                   |
| Minimum 2" thick                 | N/A                               | N/A                                 |
| Top Insulation Layer             | Insulation Fasteners<br>(Table 3) | Fastener<br>Density/ft <sup>2</sup> |
| SECUROCK Gypsum-Fiber Roof Board | ,                                 | v                                   |
| Minimum ¼" thick                 | N/A                               | N/A                                 |

Note: Layers of insulation shall be adhered with TITESET Roofing Adhesive applied in continuous 3 to 3½ inch wide ribbon in rows spaced 12-inch. o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Duro-Fleece or Duro-Fleece Plus membrane fully adhered with Duro-Last WB II

Adhesive applied at 100 ft<sup>2</sup>/gal. Laps are sealed with a minimum 1.5" wide heat

weld. Or

Duro-Fleece or Duro-Fleece Plus membrane fully adhered with Duro-Fleece CR-20 applied at 8 lbs./100-ft² in "splatter" pattern. Laps are sealed with a minimum

1.5" wide heat

Or

Duro-Tuff or Duro-Last membrane fully adhered with Duro-Last SB IV Adhesive applied at 60ft<sup>2</sup>/gal total coverage. Laps are sealed with a minimum 1.5" wide

heat weld.

Or

Duro-Tuff or Duro-Last membrane fully adhered with Duro-Last WB II Adhesive applied at 140 ft<sup>2</sup>/gal. Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -247.5 psf. (See General Limitation #9)



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**Deck Description:** Min. 22 ga., 33ksi, Type B, Steel Deck attached 6" o.c. with Traxx/5 fasteners to

supports having a maximum spacing of 6' o.c. Side laps secured with Traxx 1

fasteners spaced 24" o.c.

**System Type C(1):** All layers of insulation simultaneously attached, membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations not to exceed 1" max.

| Insulation Layer                 | Insulation Fasteners (Table 3) | Fastener<br>Density/ft <sup>2</sup> |
|----------------------------------|--------------------------------|-------------------------------------|
| SECUROCK Gypsum-Fiber Roof Board | ,                              | •                                   |
| Maximum 1" thick                 | 12 with 2                      | 1:1.33 ft <sup>2</sup>              |

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Duro-Fleece or Duro-Fleece Plus membrane fully adhered with Duro-Last WB II

Adhesive applied at 100 ft<sup>2</sup>/gal. Laps are sealed with a minimum 1.5" wide heat

weld. Or

Duro-Fleece or Duro-Fleece Plus membrane fully adhered with Duro-Fleece CR-20 applied at 8 lbs./100-ft<sup>2</sup> in "splatter" pattern. Laps are sealed with a minimum 1.5"

wide heat

Or

Duro-Tuff or Duro-Last membrane fully adhered with Duro-Last SB IV Adhesive applied at 60ft<sup>2</sup>/gal total coverage. Laps are sealed with a minimum 1.5" wide heat

weld. Or

Duro-Tuff or Duro-Last membrane fully adhered with Duro-Last WB II Adhesive applied at 140 ft<sup>2</sup>/gal. Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -67.5 psf. (See General Limitation #7)



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**Deck Description:** Concrete deck.

**System Type C(2):** All layers of insulation simultaneously attached, membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

| Insulation Layer                 | Insulation Fasteners | Fastener                |
|----------------------------------|----------------------|-------------------------|
|                                  | (Table 3)            | Density/ft <sup>2</sup> |
| SECUROCK Gypsum-Fiber Roof Board |                      |                         |
| Minimum ¼" thick                 | 12 with 2            | 1:1.33 ft <sup>2</sup>  |

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Duro-Fleece or Duro-Fleece Plus membrane fully adhered with Duro-Last WB II

Adhesive applied at 100 ft<sup>2</sup>/gal. Laps are sealed with a minimum 1.5" wide heat

weld. Or

Duro-Fleece or Duro-Fleece Plus membrane fully adhered with Duro-Fleece CR-20 applied at 8 lbs./100-ft<sup>2</sup> in "splatter" pattern. Laps are sealed with a minimum

1.5" wide heat

Or

Duro-Tuff or Duro-Last membrane fully adhered with Duro-Last SB IV Adhesive applied at 60ft²/gal total coverage. Laps are sealed with a minimum 1.5" wide

heat weld.

Or

Duro-Tuff or Duro-Last membrane fully adhered with Duro-Last WB II Adhesive applied at 140 ft<sup>2</sup>/gal. Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -45 psf. (See General Limitation #7)



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Single Ply, PVC **Membrane Type: Deck Type 7I:** Recover, Insulated

**Deck Description:** Min. 22 ga., 33ksi, Type B, Steel Deck attached 6" o.c. with Traxx/5 fasteners to

supports having a maximum spacing of 6' o.c. Side laps secured with Traxx 1

fasteners spaced 24" o.c.

System Type C(3): All layers of insulation simultaneously attached, membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations not to exceed 1" max.

**Insulation Layer Insulation Fasteners Fastener** (Table 3) Density/ft<sup>2</sup> **DensDeck Prime** Maximum 1" thick 1:1.6 ft<sup>2</sup> 8 with 2

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing **Application Standard RAS 117 for fastening details.** 

Membrane: Duro-Fleece or Duro-Fleece Plus membrane fully adhered with Duro-Last WB II

Adhesive applied at 100 ft<sup>2</sup>/gal. Laps are sealed with a minimum 1.5" wide heat

weld. Or

Duro-Fleece or Duro-Fleece Plus membrane fully adhered with Duro-Fleece CR-20 applied at 8 lbs./100-ft<sup>2</sup> in "splatter" pattern. Laps are sealed with a minimum 1.5"

wide heat

Or

Duro-Tuff or Duro-Last membrane fully adhered with Duro-Last SB IV Adhesive applied at 60ft<sup>2</sup>/gal total coverage. Laps are sealed with a minimum 1.5" wide heat

weld. Or

Duro-Tuff or Duro-Last membrane fully adhered with Duro-Last WB II Adhesive applied at 140 ft<sup>2</sup>/gal. Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -67.5 psf. (See General Limitation #7)



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Single Ply, PVC **Membrane Type:** Recover, Insulated Deck Type 7I:

**Deck Description:** Min. 22 ga., 33ksi, Type B, Steel Deck attached 6" o.c. with Traxx/5 fasteners to

supports having a maximum spacing of 6' o.c. Side laps secured with Traxx 1

fasteners spaced 24" o.c.

System Type C(4): All layers of insulation simultaneously attached, membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations not to exceed 1" max...

| Insulation Layer | Insulation Fasteners | Fastener                |
|------------------|----------------------|-------------------------|
|                  | (Table 3)            | Density/ft <sup>2</sup> |
| DensDeck Prime   |                      |                         |
| Maximum 1" thick | 12 with 2            | 1:1.33 ft <sup>2</sup>  |

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Duro-Fleece or Duro-Fleece Plus membrane fully adhered with Duro-Last WB II

Adhesive applied at 100 ft<sup>2</sup>/gal. Laps are sealed with a minimum 1.5" wide heat

weld. Or

Duro-Fleece or Duro-Fleece Plus membrane fully adhered with Duro-Fleece CR-20 applied at 8 lbs./100-ft<sup>2</sup> in "splatter" pattern. Laps are sealed with a minimum

1.5" wide heat

Or

Duro-Tuff or Duro-Last membrane fully adhered with Duro-Last SB IV Adhesive applied at 60ft<sup>2</sup>/gal total coverage. Laps are sealed with a minimum 1.5" wide

heat weld.

Or

Duro-Tuff or Duro-Last membrane fully adhered with Duro-Last WB II Adhesive applied at 140 ft<sup>2</sup>/gal. Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -67.5 psf. (See General Limitation #7)



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**Deck Description:** Min. 18 ga., steel deck with supports spaced maximum 6 ft. o.c. The deck

should record a Minimum Characteristic Resistance Force (MCRF) of 360 lbf when tested with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners

installed through to the deck in accordance with TAS 105.

**System Type C(5):** All layers of insulation simultaneously attached. Membrane adhered to plates.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum 1/2" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1.5" thick 11 with 16 See below

SECUROCK Gypsum-Fiber Roof Board, Duro-Guard Iso HD-G

Minimum 0.5" thick 11 with 16 See below

**DensDeck Prime** 

Minimum 0.25" thick 11 with 16 See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: <u>Insulation Layer shall be through fastened to the steel deck</u> with the fastener and

plate listed above. The Duro-Last membrane (0.057" min) shall be induction welded to Duro-Bond Plates in the manner and spacing specified below.

Fastening: Insulation shall be mechanically attached at 6" o.c. in rows spaced a maximum

of 48" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond

Welder. Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -90 psf. (See General Limitation #7)



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Single Ply, PVC **Membrane Type:** Deck Type 7I: Recover, Insulated

**Deck Description:** Steel (Existing Structural Non-Insulated Metal Roof Panel Assembly). The steel

purlin should record a Minimum Characteristic Resistance Force (MCRF) of 360 lbf when tested with Trufast #12 Purlin Fastener installed through to the

purlin in accordance with TAS 105.

All layers of insulation simultaneously attached. Membrane adhered to plates. System Type C(6):

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

**Base Insulation Layer (Optional) Insulation Fasteners** 

**Fastener** (Table 3) Density/ft<sup>2</sup>

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum <sup>1</sup>/<sub>2</sub>" thick N/A N/A

**Top Insulation Layer Insulation Fasteners Fastener** (Table 3) Density/ft<sup>2</sup>

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1.5" thick 8 with 16 See below

SECUROCK Gypsum-Fiber Roof Board, Duro-Guard Iso HD-G

Minimum 0.5" thick 8 with 16 See below

**DensDeck Prime** 

Minimum 0.25" thick 8 with 16 See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Insulation Layer shall be through fastened to the steel purlins with the fastener

> and plate listed above. The Duro-Last membrane (0.057" min) shall be induction welded to Duro-Bond Plates in the manner and spacing specified

below.

Fastening: Insulation shall be mechanically attached through to minimum 16 ga. steel

> purlins at 6" o.c. in rows spaced a maximum of 48" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder. Laps are sealed with a

minimum 1.5" wide heat weld.

Maximum Design

Pressure: -90 psf. (See General Limitation #7)



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**Membrane Type:** Single Ply, PVC

**Deck Type 7I:** Recover, Insulated

**Deck Description:** Min. 18 ga., steel deck with supports spaced maximum 6 ft. o.c. The deck should

record a Minimum Characteristic Resistance Force (MCRF) of 315 lbf when tested with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners installed

through to the deck in accordance with TAS 105.

**System Type C(7):** All layers of insulation simultaneously attached. Membrane adhered to plates.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum 1/2" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft²

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1.5" thick 8 with 16 See below

SECUROCK Gypsum-Fiber Roof Board, Duro-Guard Iso HD-G

Minimum 0.5" thick 8 with 16 See below

**DensDeck Prime** 

Minimum 0.25" thick 8 with 16 See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Insulation Layer shall be through fastened to the steel deck with the fastener and

plate listed above. The Duro-Last or Duro-Tuff membrane shall be induction welded to Duro-Bond Plates in the manner and spacing specified below.

Fastening: Insulation shall be mechanically attached at 6" o.c. in rows spaced a maximum

of 72" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond

Welder. Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -52.5 psf. (See General Limitation #7)



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**Deck Description:** Steel (Existing Structural Non-Insulated Metal Roof Panel Assembly). The steel

purlin should record a Minimum Characteristic Resistance Force (MCRF) of 315 lbf when tested with Trufast #12 Purlin Fastener installed through to the

purlin in accordance with TAS 105.

**System Type C(8):** All layers of insulation simultaneously attached. Membrane adhered to plates.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional) Ins

Insulation Fasteners Fastener (Table 3) Fastener Density/ft<sup>2</sup>

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum 1/2" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft²

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1.5" thick 11 with 16 See below

SECUROCK Gypsum-Fiber Roof Board, Duro-Guard Iso HD-G

Minimum 0.5" thick 11 with 16 See below

**DensDeck Prime** 

Minimum 0.25" thick 11 with 16 See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Insulation Layer shall be through fastened to the steel purlin with the fastener

and plate listed above. The Duro-Last or Duro-Tuff membrane shall be induction welded to Duro-Bond Plates in the manner and spacing specified

below.

Fastening: Insulation shall be mechanically attached through to minimum 16 ga. steel

purlins at 6" o.c. in rows spaced a maximum of 72" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder. Laps are sealed with a

minimum 1.5" wide heat weld.

Maximum Design

Pressure: -52.5 psf. (See General Limitation #7)



NOA No.: 14-0617.04 Expiration Date: 08/22/17 Approval Date: 07/02/15 Page 20 of 81 **Membrane Type:** Single Ply, PVC

**Deck Type 7I:** Recover, Insulated

**Deck Description:** Min. 18 ga., steel deck with supports spaced maximum 6 ft. o.c. The deck

should record a Minimum Characteristic Resistance Force (MCRF) of 420 lbf when tested with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners

installed through to the deck in accordance with TAS 105.

**System Type C(9):** All layers of insulation simultaneously attached. Membrane adhered to plates.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional) Insulation Fasteners Fastener

(Table 3) Density/ft<sup>2</sup>

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum 1/2" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft²

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1.5" thick 8 with 16 See below

SECUROCK Gypsum-Fiber Roof Board, Duro-Guard Iso HD-G

Minimum 0.5" thick 8 with 16 See below

**DensDeck Prime** 

Minimum 0.25" thick 8 with 16 See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Insulation Layer shall be through fastened to the steel deck with the fastener and

plate listed above. The Duro-Last membrane (0.057" min) shall be induction welded to Duro-Bond Plates in the manner and spacing specified below.

Fastening: Insulation shall be mechanically attached at 6" o.c. in rows spaced a maximum

of 96" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond

Welder. Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -52.5 psf. (See General Limitation #7)

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**Deck Description:** Steel (Existing Structural Non-Insulated Metal Roof Panel Assembly). The steel

purlin should record a Minimum Characteristic Resistance Force (MCRF) of 420 lbf when tested with Trufast #12 Purlin Fastener installed through to the

purlin in accordance with TAS 105.

**System Type C(10):** All layers of insulation simultaneously attached. Membrane adhered to plates.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum 1/2" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft²

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1.5" thick 11 with 16 See below

SECUROCK Gypsum-Fiber Roof Board, Duro-Guard Iso HD-G

Minimum 0.5" thick 11 with 16 See below

**DensDeck Prime** 

Minimum 0.25" thick 11 with 16 See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Insulation Layer shall be through fastened to the steel purlin with the fastener

and plate listed above. The Duro-Last membrane (0.057" min) shall be induction welded to Duro-Bond Plates in the manner and spacing specified

below.

Fastening: Insulation shall be mechanically attached through to minimum 16 ga. steel

purlins at 6" o.c. in rows spaced a maximum of 96" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder. Laps are sealed with a

minimum 1.5" wide heat weld.

Maximum Design

Pressure: -52.5 psf. (See General Limitation #7)



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**Deck Description:** Min. 18 ga., Type B steel with supports spaced maximum 6 ft. o.c. The deck

should record a Minimum Characteristic Resistance Force (MCRF) of 413 lbf when tested with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners

installed through to the deck in accordance with TAS 105.

**System Type C(11):** All layers of insulation simultaneously attached. Membrane adhered to plates.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum 1/2" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft²

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1.5" thick 8 with 16 See below

SECUROCK Gypsum-Fiber Roof Board, Duro-Guard Iso HD-G

Minimum 0.5" thick 8 with 16 See below

**DensDeck Prime** 

Minimum 0.25" thick 8 with 16 See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Insulation Layer shall be through fastened to the steel deck with the fastener and

plate listed above. The Duro-Last membrane (0.057" min) shall be induction welded to Duro-Bond Plates in the manner and spacing specified below.

Fastening: Insulation shall be mechanically attached at 6" o.c. in rows spaced a maximum

of 60" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond

Welder. Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -82.5 psf. (See General Limitation #7)

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**Deck Description:** Steel (Existing Structural Non-Insulated Metal Roof Panel Assembly). The steel

purlin should record a Minimum Characteristic Resistance Force (MCRF) of 413 lbf when tested with Trufast #12 Purlin Fastener installed through to the

purlin in accordance with TAS 105.

System Type C(12): All layers of insulation simultaneously attached. Membrane adhered to plates.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum 1/2" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft²

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1.5" thick 11 with 16 See below

SECUROCK Gypsum-Fiber Roof Board, Duro-Guard Iso HD-G

Minimum 0.5" thick 11 with 16 See below

**DensDeck Prime** 

Minimum 0.25" thick 11 with 16 See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Insulation Layer shall be through fastened to the steel purlins with the fastener

and plate listed above. The Duro-Last membrane (0.057" min) shall be induction welded to Duro-Bond Plates in the manner and spacing specified

below.

Fastening: Insulation shall be mechanically attached through to minimum 16 ga. steel

purlins at 6" o.c. in rows spaced a maximum of 60" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder. Laps are sealed with a

minimum 1.5" wide heat weld.

Maximum Design

Pressure: -82.5 psf. (See General Limitation #7)



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Single Ply, PVC **Membrane Type:** 

Deck Type 7I: Recover, Insulated

**Deck Description:** Min. 18 ga., steel deck with supports spaced maximum 6 ft. o.c. The deck

should record a Minimum Characteristic Resistance Force (MCRF) of 330 lbf when tested with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners

installed through to the deck in accordance with TAS 105.

All layers of insulation simultaneously attached. Membrane adhered to plates. System Type C(13):

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

**Base Insulation Layer (Optional)** 

**Insulation Fasteners** 

**Fastener** 

(Table 3) Density/ft<sup>2</sup> Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum <sup>1</sup>/<sub>2</sub>" thick N/A

**Top Insulation Layer** 

**Insulation Fasteners** (Table 3)

**Fastener** Density/ft<sup>2</sup>

N/A

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1.5" thick

8 with 16

See below

SECUROCK Gypsum-Fiber Roof Board, Duro-Guard Iso HD-G

Minimum 0.5" thick

8 with 16

See below

**DensDeck Prime** 

Minimum 0.25" thick

8 with 16

See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Insulation Layer shall be through fastened to the steel deck with the fastener and

> plate listed above. The Duro-Last or Duro-Tuff membrane shall be induction welded to Duro-Bond Plates in the manner and spacing specified below.

Insulation shall be mechanically attached at 6" o.c. in rows spaced a maximum Fastening:

of 48" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond

Welder. Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -82.5 psf. (See General Limitation #7)

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**Deck Description:** Steel (Existing Structural Non-Insulated Metal Roof Panel Assembly). The steel

purlin should record a Minimum Characteristic Resistance Force (MCRF) of 330 lbf when tested with Trufast #12 Purlin Fastener installed through to the

purlin in accordance with TAS 105.

**System Type C(14):** All layers of insulation simultaneously attached. Membrane adhered to plates.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum 1/2" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft²

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1.5" thick 11 with 16 See below

SECUROCK Gypsum-Fiber Roof Board, Duro-Guard Iso HD-G

Minimum 0.5" thick 11 with 16 See below

**DensDeck Prime** 

Minimum 0.25" thick 11 with 16 See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Insulation Layer shall be through fastened to the steel purlins with the fastener

and plate listed above. The Duro-Last or Duro-Tuff membrane shall be induction welded to Duro-Bond Plates in the manner and spacing specified

below.

Fastening: Insulation shall be mechanically attached through to minimum 16 ga. steel

purlins at 6" o.c. in rows spaced a maximum of 48" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder. Laps are sealed with a

minimum 1.5" wide heat weld.

Maximum Design

Pressure: -82.5 psf. (See General Limitation #7)



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**Deck Description:** Min. 18 ga., steel deck with supports spaced maximum 6 ft. o.c. The deck

should record a Minimum Characteristic Resistance Force (MCRF) of 360 lbf when tested with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners

installed through to the deck in accordance with TAS 105.

**System Type C(15):** All layers of insulation simultaneously attached. Membrane adhered to plates.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum 1/2" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft²

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1.5" thick 8 with 16 See below

SECUROCK Gypsum-Fiber Roof Board, Duro-Guard Iso HD-G

Minimum 0.5" thick 8 with 16 See below

**DensDeck Prime** 

Minimum 0.25" thick 8 with 16 See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Insulation Layer shall be through fastened to the steel deck with the fastener and

plate listed above. The Duro-Last membrane (0.057" min) shall be induction welded to Duro-Bond Plates in the manner and spacing specified below.

Fastening: Insulation shall be mechanically attached at 12" o.c. in rows spaced a maximum

of 48" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond

Welder. Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -45 psf. (See General Limitation #7)



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**Deck Description:** Steel (Existing Structural Non-Insulated Metal Roof Panel Assembly). The steel

purlin should record a Minimum Characteristic Resistance Force (MCRF) of 360 lbf when tested with Trufast #12 Purlin Fastener installed through to the

purlin in accordance with TAS 105.

**System Type C(16):** All layers of insulation simultaneously attached. Membrane adhered to plates.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional) Insulation Fasteners

ation Fasteners Fastener (Table 3) Fastener

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum 1/2" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft²

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1.5" thick 11 with 16 See below

SECUROCK Gypsum-Fiber Roof Board, Duro-Guard Iso HD-G

Minimum 0.5" thick 11 with 16 See below

**DensDeck Prime** 

Minimum 0.25" thick 11 with 16 See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Insulation Layer shall be through fastened to the steel purlins with the fastener

and plate listed above. The Duro-Last membrane (0.057" min) shall be induction welded to Duro-Bond Plates in the manner and spacing specified

below.

Fastening: Insulation shall be mechanically attached through to minimum 16 ga. steel

purlins at 12" o.c. in rows spaced a maximum of 48" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder. Laps are sealed with a

minimum 1.5" wide heat weld.

Maximum Design

Pressure: -45 psf. (See General Limitation #7)



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**Deck Type 7I:** Recover, Insulated

**Deck Description:** Min. 18 ga., steel deck with supports spaced maximum 6 ft. o.c. The deck

should record a Minimum Characteristic Resistance Force (MCRF) of 450 lbf when tested with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners

installed through to the deck in accordance with TAS 105.

**System Type C(17):** All layers of insulation simultaneously attached. Membrane adhered to plates.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum 1/2" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft²

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1.5" thick 8 with 16 See below

SECUROCK Gypsum-Fiber Roof Board, Duro-Guard Iso HD-G

Minimum 0.5" thick 8 with 16 See below

**DensDeck Prime** 

Minimum 0.25" thick 8 with 16 See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Insulation Layer shall be through fastened to the steel deck with the fastener and

plate listed above. The Duro-Last membrane (0.057" min) shall be induction welded to Duro-Bond Plates in the manner and spacing specified below.

Fastening: Insulation shall be mechanically attached at 6" o.c. in rows spaced a maximum

of 120" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond

Welder. Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -45 psf. (See General Limitation #7)



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**Deck Description:** Steel (Existing Structural Non-Insulated Metal Roof Panel Assembly) The steel

purlin should record a Minimum Characteristic Resistance Force (MCRF) of 450 lbf when tested with Trufast #12 Purlin Fastener installed through to the

purlin in accordance with TAS 105.

**System Type C(18):** All layers of insulation simultaneously attached. Membrane adhered to plates.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

**Base Insulation Layer (Optional)** 

**Insulation Fasteners** (Table 3)

Fastener Density/ft<sup>2</sup>

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum 1/2" thick N/A N/A

**Top Insulation Layer** 

**Insulation Fasteners** 

Fastener Density/ft<sup>2</sup>

(Table 3)

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1.5" thick

11 with 16

See below

SECUROCK Gypsum-Fiber Roof Board, Duro-Guard Iso HD-G

Minimum 0.5" thick

11 with 16

See below

**DensDeck Prime** 

Minimum 0.25" thick

11 with 16

See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Insulation Layer shall be through fastened to the steel purlins with the fastener

and plate listed above. The Duro-Last membrane (0.057" min) shall be induction welded to Duro-Bond Plates in the manner and spacing specified

below.

Fastening: Insulation shall be mechanically attached through to minimum 16 ga. steel

purlins at 6" o.c. in rows spaced a maximum of 120" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder. Laps are sealed with a

minimum 1.5" wide heat weld.

Maximum Design

Pressure: -45 psf. (See General Limitation #7)



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Single Ply, PVC **Membrane Type:** 

Deck Type 7I: Recover, Insulated

Min. 2500 psi concrete. The deck should record a Minimum Characteristic **Deck Description:** 

Resistance Force (MCRF) of 225 lbf when tested with Duro-Last #14 HD Fasteners installed through to the deck in accordance with TAS 105.

All layers of insulation simultaneously attached. Membrane adhered to plates. System Type C(19):

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

**Base Insulation Layer (Optional) Insulation Fasteners Fastener** Density/ft<sup>2</sup> (Table 3)

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum <sup>1</sup>/<sub>2</sub>" thick N/A N/A

**Top Insulation Layer Insulation Fasteners Fastener** (Table 3) Density/ft<sup>2</sup>

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1.5" thick 12 with 16 See below

SECUROCK Gypsum-Fiber Roof Board, Duro-Guard Iso HD-G

Minimum 0.5" thick See below 12 with 16

**DensDeck Prime** 

Minimum 0.25" thick 12 with 16 See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing **Application Standard RAS 117 for fastening details).** 

Membrane: Insulation Layer shall be through fastened to the concrete deck with the fastener

> and plate listed above. The Duro-Last or Duro-Tuff membrane shall be induction welded to Duro-Bond Plates in the manner and spacing specified

below.

Fastening: Insulation shall be mechanically attached at 6" o.c. in rows spaced a maximum

of 60" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond

Welder. Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -45 psf. (See General Limitation #7)



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**Membrane Type:** Single Ply, PVC

**Deck Type 7I:** Recover, Insulated

**Deck Description:** Min. 2500 psi concrete. The deck should record a Minimum Characteristic

Resistance Force (MCRF) of 210 lbf when tested with Duro-Last #14 HD Fasteners installed through to the deck in accordance with TAS 105.

**System Type C(20):** All layers of insulation simultaneously attached. Membrane adhered to plates.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum  $^{1}/_{2}$ " thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft²

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1.5" thick 12 with 16 See below

**SECUROCK Gypsum-Fiber Roof Board, Duro-Guard Iso HD-G** 

Minimum 0.5" thick 12 with 16 See below

**DensDeck Prime** 

Minimum 0.25" thick 12 with 16 See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Insulation Layer shall be through fastened to the concrete deck with the fastener

and plate listed above. The Duro-Last or Duro-Tuff membrane shall be induction welded to Duro-Bond Plates in the manner and spacing specified

below.

Fastening: Insulation shall be mechanically attached at 6" o.c. in rows spaced a maximum

of 48" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond

Welder. Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -52.5 psf. (See General Limitation #7)



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Single Ply, PVC **Membrane Type:** 

Deck Type 7I: Recover, Insulated

Min. 2500 psi concrete. The deck should record a Minimum Characteristic **Deck Description:** 

> Resistance Force (MCRF) of 280 lbf when tested with Duro-Last #14 HD Fasteners installed through to the deck in accordance with TAS 105.

All layers of insulation simultaneously attached. Membrane adhered to plates. System Type C(21):

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

**Base Insulation Layer (Optional) Insulation Fasteners** Fastener Density/ft<sup>2</sup> (Table 3)

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum <sup>1</sup>/<sub>2</sub>" thick N/A N/A

**Top Insulation Layer Insulation Fasteners Fastener** (Table 3) Density/ft<sup>2</sup>

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1.5" thick 12 with 16 See below

SECUROCK Gypsum-Fiber Roof Board, Duro-Guard Iso HD-G

Minimum 0.5" thick 12 with 16 See below

**DensDeck Prime** 

Minimum 0.25" thick 12 with 16 See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing **Application Standard RAS 117 for fastening details).** 

Membrane: Insulation Layer shall be through fastened to the concrete deck with the fastener

> and plate and density listed above. The Duro-Last or Duro-Tuff membrane shall be induction welded to Duro-Bond Plates in the manner and spacing specified

below

Fastening: Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder.

Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -52.5 psf. (See General Limitation #7)



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Membrane Type: Single Ply, PVC

**Deck Type 7I:** Recover, Insulated

**Deck Description:** Min. 2500 psi concrete. The deck should record a Minimum Characteristic

Resistance Force (MCRF) of 210 lbf when tested with Duro-Last #14 HD Fasteners installed through to the deck in accordance with TAS 105.

System Type C(22): All layers of insulation simultaneously attached. Membrane adhered to plates.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum  $^{1}/_{2}$ " thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Fensity/ft²

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1.5" thick 12 with 16 See below

SECUROCK Gypsum-Fiber Roof Board, Duro-Guard Iso HD-G

Minimum 0.5" thick 12 with 16 See below

**DensDeck Prime** 

Minimum 0.25" thick 12 with 16 See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Insulation Layer shall be through fastened to the concrete deck with the fastener

and plate and density listed above. The Duro-Last membrane (0.057" min) shall be induction welded to Duro-Bond Plates in the manner and spacing specified

below

Fastening: Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder.

Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -52.5 psf. (See General Limitation #7)



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**Deck Description:** 19/32" plywood or wood plank with supports at a maximum 24" o.c. attached

with 0.113 inch x 2-3/8 inch ring shank nails fastened 6-inches o.c. at the perimeter and 12-inches o.c. in the field. The wood supports should record a Minimum Characteristic Resistance Force (MCRF) of 420 lbf when tested with

Duro-Last #14 HD Fasteners installed through to the wood support in

accordance with TAS 105.

System Type C(23): All layers of insulation simultaneously attached. Membrane adhered to plates.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Fire Barrier: Atlas Roofing Corporation FR-10<sup>®</sup>, ¼" DensDeck, or ¼" SECUROCK

(Optional)

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum 1/2" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Pensity/ft²

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1.5" thick 12 with 16 See below

SECUROCK Gypsum-Fiber Roof Board, Duro-Guard Iso HD-G

Minimum 0.5" thick 12 with 16 See below

**DensDeck Prime** 

Minimum 0.25" thick 12 with 16 See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Insulation Layer shall be through **fastened into the wood supports** with the

fastener and plate listed above. The Duro-Last membrane (0.057" min) shall be induction welded to Duro-Bond Plates in the manner and spacing specified

below.

Fastening: Insulation shall be mechanically attached at 12" o.c. in rows spaced a maximum

of 48" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond

Welder. Laps are sealed with a minimum 1" wide heat weld.

Maximum Design

Pressure: -52.5 psf. (See General Limitation #7)

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NOA No.: 14-0617.04 Expiration Date: 08/22/17 Approval Date: 07/02/15 Page 35 of 81 **Membrane Type:** Single Ply, PVC

**Deck Type 7I:** Recover, Insulated

**Deck Description:** 19/32" plywood or wood plank with support at a maximum 24" o.c. attached

with 0.113 inch x 2-3/8 inch ring shank nails fastened 6-inches o.c. at the perimeter and 12-inches o.c. in the field. The wood supports should record a Minimum Characteristic Resistance Force (MCRF) of 320 lbf when tested with

Duro-Last #14 HD Fasteners installed through to the wood support in

accordance with TAS 105.

System Type C(24): All layers of insulation simultaneously attached. Membrane adhered to plates.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Fire Barrier:** Atlas Roofing Corporation FR-10<sup>®</sup>, ½" DensDeck, or ½" SECUROCK **(Optional)** 

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum  $^{1}/_{2}$ " thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1.5" thick 12 with 16 1:2.67

SECUROCK Gypsum-Fiber Roof Board, Duro-Guard Iso HD-G

Minimum 0.5" thick 12 with 16 1:2.67

**DensDeck Prime** 

Minimum 0.25" thick 12 with 16 1:2.67

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: <u>Insulation Layer shall be through fastened into the wood supports</u> with the

fastener and plate listed above. The Duro-Last or Duro-Tuff membrane shall be induction welded to Duro-Bond Plates in the manner and spacing specified

below

Fastening: Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder.

Laps are sealed with a minimum 1" wide heat weld.

Maximum Design

Pressure: -60 psf. (See General Limitation #7)



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**Deck Description:** 19/32" plywood or wood plank with support at a maximum 24" o.c. attached

with 0.113 inch x 2-3/8 inch ring shank nails fastened 6-inches o.c. at the perimeter and 12-inches o.c. in the field. The wood supports should record a Minimum Characteristic Resistance Force (MCRF) of 480 lbf when tested with

Duro-Last #14 HD Fasteners installed through to the wood support in

accordance with TAS 105.

System Type C(25): All layers of insulation simultaneously attached. Membrane adhered to plates.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Fire Barrier: Atlas Roofing Corporation FR-10<sup>®</sup>, ½" DensDeck, or ½" SECUROCK

(Optional)

One or more layers of any of the following insulations:

Base Insulation Layer (Optional) Insulation Fasteners (Table 3) Fastener

Density

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum  $^{1}/_{2}$ " thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1.5" thick 12 with 16 See below

SECUROCK Gypsum-Fiber Roof Board, Duro-Guard Iso HD-G

Minimum 0.5" thick 12 with 16 See below

**DensDeck Prime** 

Minimum 0.25" thick 12 with 16 See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: <u>Insulation Layer shall be through **fastened into the wood supports**</u> with the

fastener and plate listed above. The Duro-Last membrane (0.057" min) shall be induction welded to Duro-Bond Plates in the manner and spacing specified

below.

Fastening: Insulation shall be mechanically attached at 6" o.c. in rows spaced a maximum

of 96" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond

Welder. Laps are sealed with a minimum 1" wide heat weld.

Maximum Design

Pressure: -60 psf. (See General Limitation #7)

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**Deck Type 7I:** Recover, Insulated

**Deck Description:** 19/32" plywood or wood plank with support at a maximum 24" o.c. attached

with 0.113 inch x 2-3/8 inch ring shank nails fastened 6-inches o.c. at the perimeter and 12-inches o.c. in the field. The wood supports should record a Minimum Characteristic Resistance Force (MCRF) of 360 lbf when tested with

Duro-Last #14 HD Fasteners installed through to the wood support in

accordance with TAS 105.

System Type C(26): All layers of insulation simultaneously attached. Membrane adhered to plates.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Fire Barrier: Atlas Roofing Corporation FR-10<sup>®</sup>, ¼" DensDeck, or ¼" SECUROCK

(Optional)

One or more layers of any of the following insulations:

Base Insulation Layer (Optional) Insulation Fasteners (Table 3) Density

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum <sup>1</sup>/<sub>2</sub>" thick N/A N/A

Top Insulation Layer Insulation Fasteners (Table 3) Fastener

Density

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1.5" thick 12 with 16 See below

SECUROCK Gypsum-Fiber Roof Board, Duro-Guard Iso HD-G

Minimum 0.5" thick 12 with 16 See below

**DensDeck Prime** 

Minimum 0.25" thick 12 with 16 See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: <u>Insulation Layer shall be through **fastened into the wood supports** with the</u>

fastener and plate listed above. The Duro-Last membrane (0.057" min) shall be induction welded to Duro-Bond Plates in the manner and spacing specified

below.

Fastening: Insulation shall be mechanically attached at 6" o.c. in rows spaced a maximum

of 72" o.c. Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond

Welder. Laps are sealed with a minimum 1" wide heat weld.

Maximum Design

Pressure: -60 psf. (See General Limitation #7)



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**Deck Description:** 19/32" plywood or wood plank with support at a maximum 24" o.c. attached

with 0.113 inch x 2-3/8 inch ring shank nails fastened 6-inches o.c. at the perimeter and 12-inches o.c. in the field. The wood supports should record a Minimum Characteristic Resistance Force (MCRF) of 360 lbf when tested with

Duro-Last #14 HD Fasteners installed through to the wood support in

accordance with TAS 105.

**System Type C(27):** All layers of insulation simultaneously attached. Membrane adhered to plates.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Fire Barrier:** Atlas Roofing Corporation FR-10<sup>®</sup>, ¼" DensDeck, or ¼" SECUROCK **(Optional)** 

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H

Minimum 1/2" thick

N/A

N/A

Top Insulation Layer Insulation Fasteners (Table 3) Density

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1.5" thick 12 with 16 1:2

SECUROCK Gypsum-Fiber Roof Board, Duro-Guard Iso HD-G

Minimum 0.5" thick 12 with 16 1:2

DensDeck Prime

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: <u>Insulation Layer shall be through **fastened into the wood supports**</u> with the

fastener and plate listed above. The Duro-Last or Duro-Tuff membrane shall be induction welded to Duro-Bond Plates in the manner and spacing specified below.

12 with 16

Fastening: Membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder. Laps

are sealed with a minimum 1" wide heat weld.

Maximum Design

Minimum 0.25" thick

Pressure: -90 psf. (See General Limitation #7)



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1:2

Single Ply, PVC **Membrane Type:** Deck Type 7I: Recover, Insulated

Minimum 22 ga. steel deck attached to supports having a maximum span of 6 ft. **Deck Description:** 

o.c.. The deck should record a Minimum Characteristic Resistance Force

(MCRF) of 420 lbf when tested with OMG XHD installed through to the deck in

accordance with TAS 105.

System Type C(28): All layers of insulation simultaneously attached. Membrane adhered to plates.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

**Base Insulation Layer (Optional) Insulation Fasteners** Fastener (Table 3) Density/ft2

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum ½" thick N/A N/A

**Top Insulation Laver Insulation Fasteners** Fastener (Table 3) Density/ft<sup>2</sup>

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1" thick 22 with 16 See below

Duro-Guard Iso HD-A, Duro-Guard Iso HD-G, Duro-Guard Iso HD-H

Minimum 0.5" thick See below 22 with 16

DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board

Minimum 0.25" thick 22 with 16 See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Duro-Last or Duro-Tuff Membrane with shall be induction welded to Duro-

Bond Plates 1302 in the manner and spacing specified below.

Fastening: Insulation shall be mechanically attached 24-inch o.c. in rows spaced 24-inch

o.c. Two rows are installed in a non-staggered pattern and two rows are

staggered 12- inches. Membrane is welded to the Duro-Bond Plate 1302 with

RhinoBond welder. Minimum 1-inch wide weld at lap seams.

Maximum Design

Pressure: -52.5 psf. (See General Limitation #7)



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**Deck Description:** Minimum 22 ga. steel deck attached to supports having a maximum span of 6 ft.

o.c. The deck should record a Minimum Characteristic Resistance Force

(MCRF) of 450 lbf when tested with OMG XHD installed through to the deck in

accordance with TAS 105.

**System Type C(29):** All layers of insulation simultaneously attached. Membrane adhered to plates.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional) Insulation Fasteners Fastener

(Table 3) Density/ft2

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum ½" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener

(Table 3) Density/ft<sup>2</sup>

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1" thick 22 with 16 See below

Duro-Guard Iso HD-A, Duro-Guard Iso HD-G, Duro-Guard Iso HD-H

Minimum 0.5" thick 22 with 16 See below

DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board

Minimum 0.25" thick 22 with 16 See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Duro-Last or Duro-Tuff shall be induction welded to Duro-Bond Plates 1302

ithe manner and spacing specified below.

Fastening: Insulation shall be mechanically attached 24-inch o.c. in rows spaced 18-inch

o.c. Two rows are installed in a non-staggered pattern and two rows are staggered 12- inches. Membrane is welded to the Duro-Bond Plate 1302 with

RhinoBond welder. Minimum 1-inch wide weld at lap seams.

Maximum Design

Pressure: -75 psf. (See General Limitation #7)



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**Deck Description:** Minimum 22 ga., steel deck attached to supports having a maximum span of 6 ft.

o.c. The deck should record a Minimum Characteristic Resistance Force (MCRF) of 540 lbf when tested with OMG XHD fastener installed through to

the deck in accordance with TAS 105.

**System Type C(30):** All layers of insulation simultaneously attached. Membrane adhered to plates.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft2

Approved EPS, Approved XPS, Duro-Guard Iso II-A, Duro-Guard Iso II-G, Duro-Guard Iso II-H Minimum ½" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum 1" thick 22 with 16 See below

Duro-Guard Iso HD-A, Duro-Guard Iso HD-G, Duro-Guard Iso HD-H

Minimum 0.5" thick 22 with 16 See below

DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board

Minimum 0.25" thick 22 with 16 See below

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Duro-Last or Duro-Tuff Membrane with shall be induction welded to Duro-

Bond Plates 1302 in the manner and spacing specified below.

Fastening: Insulation shall be mechanically attached 24-inch o.c. in rows spaced 36-inch

o.c. Two rows are installed in a non-staggered pattern and two rows are staggered 12- inches. Membrane is welded to the Duro-Bond Plate 1302 with

RhinoBond welder. Minimum 1-inch wide heat weld at lap seams.

Maximum Design

Pressure: -45 psf. (See General Limitation #7)



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Single Ply, PVC **Membrane Type:** Deck Type 7I: Recover, Insulated

**Deck Description:** Steel (Existing Structural Non-Insulated Metal Roof Panel Assembly).

System Type D(1): All layers of insulation and base sheet simultaneously attached. Membrane

attached over preliminarily fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer: (To be placed between the ribs **Insulation Fasteners** Fastener or over panels of existing structural metal roof system.) (Table 3) Density/ft2 AC Foam II, AC Foam III, Duro-Guard Iso II-A, Duro-Guard Iso III-A, ENRGY 3, ISO 95+ GL, Multi-Max 3. Duro-Guard Iso II-G

Minimum 1.5" thick N/A N/A

**Top Insulation Layer Insulation Fasteners** Fastener Density/ft<sup>2</sup> (Table 3)

AC Foam II, AC Foam III, Duro-Guard Iso II-A, Duro-Guard Iso III-A, ENRGY 3, ISO 95+ GL, Multi-Max 3

Minimum 1" thick N/A N/A

Duro-Guard Iso HD-G, DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimim 0.25" thick

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane with 60" tabs: Duro-Last membrane shall be mechanically attached at its 3" tabs, spaced

> every 60" with Tru-Fast Purlin Fasteners with Duro-Last Poly-plates spaced 12" o.c. maximum, through the insulation and through the deck into the purlins spaced 5' o.c. Laps are sealed with a minimum 1.5 in. heat weld. (Maximum Design Pressure -45 psf. See General Limitation #7)

Membrane with 72" tabs: Duro-Last membrane shall be mechanically attached at its 3" tabs, spaced

> every 72" with Tru-Fast Purlin Fasteners with Duro-Last Poly-plates spaced 6" o.c. maximum, through the insulation and through the deck into the purlins

spaced 6' o.c. Laps are sealed with a minimum 1.5 in. heat weld. (Maximum Design Pressure -52.5 psf. See General Limitation #7)

Membrane with 120" tabs: Duro-Last membrane shall be mechanically attached at its 3" tabs, spaced

every 120" with Tru-Fast Purlin Fasteners Duro-Last Poly-plates spaced 6" o.c. maximum, through the insulation and through the deck into the purlins

spaced 5' o.c. Laps are sealed with a minimum 1.5 in. heat weld. (Maximum Design Pressure -52.5 psf. See General Limitation #7)

Maximum Design

Pressure: See Fastening Requirements above.

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**Deck Description:** Structural Concrete or minimum 22 gage, type B, Grade 80 steel deck attached to

supports having a maximum span of 6 ft. o.c. with Traxx/5 fasteners spaced 6" o.c. at the supports with washers. Deck side laps secured maximum 24" o.c. with

Traxx/1 fasteners.

**System Type D(2):** All layers of insulation are preliminarily attached to roof deck as specified below.

Membrane is mechanically attached to deck through the insulation layers.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Insulation Layer Insulation Fasteners Fastener (Table 3) Fastener

AC Foam II, Duro-Guard Iso II-A, ENRGY-3, ENRGY-3 25 PSI, Duro-Guard Iso II-G,

Duro-Guard II-H, Duro-Guard HD-G

Minimum 1½" thick 1, 4 or 7 1:4 ft<sup>2</sup>
1, 4 or 7 1:6.4 ft<sup>2</sup>

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Vapor Barrier: (Optional) Any UL or FM approved vapor barrier.

Fire Barrier: (Optional) Atlas Roofing Corporation FR-10<sup>®</sup>, ¼" DensDeck, ½" thick UL

Classification Type X Gypsum with a moisture resistant facer and core, or a second sheet of barrier board may be used over the insulation (see General

Limitation #1).

Membrane, 60" tabs: (Steel or Concrete only) Duro-Last membrane shall be mechanically attached at

its 3" tabs, spaced every 60" with Duro-Last fasteners and Duro-Last Polyplates, or Duro-Last Fluted Concrete Nails (for structural concrete only) spaced 12" o.c. maximum, through the insulation and/or LWC and into the deck. Laps

are sealed with a minimum 1.5" wide heat weld.

(Maximum Design Pressure -45 psf. See General Limitation #7)

Membrane, 27" tabs: (Steel only) Duro-Last membrane shall be mechanically attached at its 3" tabs,

spaced every 28" wit h Duro-Last fasteners and Duro-Last Poly-plates spaced 18" o.c. maximum, through the insulation and into the deck. Laps are sealed with

a minimum 1.5" wide heat weld.

(Maximum Design Pressure -45 psf. See General Limitation #7)

Membrane, 28" tabs: (Concrete only) Duro-Last membrane shall be mechanically attached at its 3"

tabs, spaced every 28" with Duro-Last Fluted Concrete Nails, Duro-Last #14 HD Fastener, Duro-Last #14 Concrete Screws and Duro-Last Poly-plates spaced 6" o.c. maximum, through the insulation and into the deck. Laps are sealed with a

minimum 1.5" wide heat weld.

(Maximum Design Pressure -105 psf. See General Limitation #7)

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NOA No.: 14-0617.04 Expiration Date: 08/22/17 Approval Date: 07/02/15 Page 44 of 81 Membrane, 28" tabs: (Steel only) Duro-Last® membrane shall be mechanically attached at its 3" tabs,

spaced every 28" with Duro-Last fasteners with Duro-Last Poly-plates spaced at 6" o.c. maximum, through the insulation and into the deck. Laps are sealed with a

minimum 1.5" wide heat weld.

(Maximum Design Pressure -105 psf. See General Limitation #7)

Maximum Design

Pressure: See Fastening Requirements above.



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Deck Type 7I: Recover, Insulated

**Deck Description:** Structural Concrete or minimum 22 gage, type B, Grade 80 steel deck attached to

> supports having a maximum span of 6 ft. o.c. with Traxx/5 fasteners spaced 6" o.c. at the supports with washers. Deck side laps secured maximum 24" o.c. with

Traxx/1 fasteners.

System Type D(3): All layers of insulation and base sheet simultaneously attached. Membrane

attached over preliminarily fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Insulation Layer Insulation Fasteners** Fastener (Table 3) Density/ft<sup>2</sup>

AC Foam II, Duro-Guard Iso II-A, AC Foam III, Duro-Guard Iso III-A, ENRGY-3, ENRGY 25 PSI, Duro-Guard Iso II-G, Duro-Guard II-H, Duro-Guard HD-G

Minimum 1½" thick N/A N/A

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Duro-Last membrane shall be mechanically attached at its 3" tabs, spaced every

> 120" with Duro-Last Poly-plates and Duro-Last #14 HD Fasteners or OMG Fluted Nail (concrete) spaced 6" o.c. maximum, through the insulation and into the deck.

Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -52.5 psf. (See Genetal Limitation #7)

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**Deck Description:** Stuctural Concrete or Minimum 22 gage, Type B, Grade 80 steel deck attached

with ITW Buildex Traxx/4 or Traxx/5 fastener at a maximum spacing of 6" o.c., to minimum 1/4" thick steel supports having a maximum span of 6 ft. o.c. Sidelaps

are attached with Traxx/1 fasteners at 30" o.c.

**System Type D(4):** All layers of insulation and base sheet simultaneously attached. Membrane

attached over preliminarily fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Insulation Layer Insulation Fasteners Fastener (Table 3) Fastener

AC Foam II, Duro-Guard Iso II-A, AC Foam III, Duro-Guard Iso III-A, Duro-Guard II-H, Duro-Guard HD-G

Minimum 1½" thick N/A N/A

Note: Top layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Membrane: Duro-Last membrane shall be mechanically attached as described below:

Fastener #1: Membrane shall be fastened at its 3" tabs, spaced every 60" with Duro-Last #14

HD Fasteners and Duro-Last Poly-plates or Duro-Last 3" Metal Insulation Plates, Or OMG Fluted Concrete Nails, (concrete only), spaced 6" o.c. maximum, through the insulation and into the deck. Laps are sealed with a

minimum 1.5" wide heat weld.

(Maximum Design Pressure -52.5 psf. See General Limitation #7)

Fastener #2: Membrane shall be fastened at its 3" tabs, spaced every 28" o.c. with Duro-Last

#14 HD Fasteners and Duro-Last Poly-plates or Duro-Last 3" Metal Insulation Plates, Or OMG Fluted Concrete Nails (concrete only), spaced 18" o.c. maximum, through the insulation and into the deck. Laps are sealed with a

minimum 1.5" wide heat weld.

(Maximum Design Pressure -52.5 psf. See General Limitation #7)

Fastener #3: Membrane shall be fastened at its 3" tabs, spaced 28" o.c. with Duro-Last #14

HD Fasteners and Duro-Last Poly-plates or Duro-Last 3" Metal Insulation Plates, Or OMG Fluted Concrete Nails (concrete only) spaced 6" o.c. through the insulation and into the deck. Laps are sealed with a minimum 1.5" wide heat

weld.

(Maximum Design Pressure -105 psf. See General Limitation #7)

Maximum Design

Pressure: See Fastening Requirements above.



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**Deck Description:** Minimum 22 gage, Type B, Grade 80 steel attached to steel supports spaced 5-ft

o.c. The deck should record a Minimum Characteristic Resistance Force (MCRF) of 338 lbf when tested with Duro-Last #15 Extra Heavy Duty Drill Point Fastener

installed through to the deck in accordance with TAS 105.

**System Type D(5):** Insulation is preliminarily attached to roof deck as specified below. Membrane

is mechanically attached to deck through the insulation layer.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

| Insulation Layer   | Insulation Fasteners | Fastener                |
|--|----------------------|-------------------------|
|  | (Table 3)            | Density/ft <sup>2</sup> |
| AC Foam II, Duro-Guard Iso II-A, AC Foam III, Duro-Guard Iso III-A, Duro-Guard Iso II-G, |                      |                         |
| Duro-Guard II-H, Duro-Guard HD-G   |                      |                         |
| Minimum 1½" thick  | 8, 3                 | 1:6.4 ft <sup>2</sup>   |
| SECUROCK Gypsum-Fiber Roof Board   |                      |                         |
| Minimum ½" thick   | 8, 3                 | 1:6.4 ft <sup>2</sup>   |

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Duro-Last membrane shall be mechanically attached at its 3" wide tabs, spaced

every 60" o.c. with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners with Duro-Last Batten Bar 6" o.c. maximum, through the insulation and into the deck. Duro-Last Tab Sealer 4725 shall be applied over the tab membrane and to the overlying membrane underside at a rate of 60 ft²/gal (two-sided application).

Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -67.5 psf. (See General Limitation #7)



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**Deck Type 7I:** Recover, Insulated

**Deck Description:** Concrete

**System Type D(6):** All layers of insulation and base sheet simultaneously attached. Membrane

attached over preliminarily fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Insulation Layer

(Table 3)

AC Foam II, Duro-Guard Iso II-A, AC Foam III, Duro-Guard Iso III-A, ENRGY-3, ISO 95+ GL,

Multi-Max FA-3, Duro-Guard Iso II-G, Duro-Guard II-H, Duro-Guard HD-G

Minimum 1" thick

N/A

N/A

SECUROCK Gypsum-Fiber Roof Board

SECUROCK Gypsum-Fiber Roof Board Minimum 0.25" thick

N/A

N/A

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Duro-Last membrane shall be mechanically attached at its 3" wide tabs, spaced

every 120" with Duro-Last Poly-plates and Duro-Last #14 HD Fasteners or Duro-Last Fluted Concrete Nails or Duro-Last #14 Concrete Screws spaced at 6" o.c.

maximum, through the insulation and into the deck.

Maximum Design

Pressure: -52.5 psf. (See General Limitation #7)



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Single Ply, PVC **Membrane Type:** 

**Deck Type 7I:** Recover, Insulated

Cementitious wood fiber attached with ½-14 x 5 inch screws with 2-inch **Deck Description:** 

> diameter metal plates fastened 3 ½ inches from each edge and 8 inches o.c. between edge fasteners at each support spaced a maximum 32" o.c. The deck should record a Minimum Characteristic Resistance Force (MCRF) of 214 lbf when tested with Duro-Last Auger Fasteners installed through to the deck in

accordance with TAS 105.

All layers of insulation and base sheet simultaneously attached. Membrane System Type D(7):

attached over preliminarily fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

**Insulation Laver Insulation Fasteners Fastener** (Table 3) **Density** 

Duro-Guard Iso II-A, Duro-Guard Iso II -H, Duro-Guard Iso II-G

Minimum 1.5" thick N/A N/A

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Duro-Last membrane shall be mechanically attached at its 6" tabs, spaced Membrane:

every 57" with Duro-Last Auger Fasteners & Plates spaced 6" o.c.

maximum, through the insulation and into the deck. 6" wide laps are sealed

with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -45 psf. (See General Limitation #7)



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**Deck Type 7I:** Recover, Insulated

**Deck Description:** Cementitious wood fiber attached with  $\frac{1}{4}$ -14 x 5 inch screws with 2-inch

diameter metal plates fastened 3 ½ inches from each edge and 8 inches o.c. between edge fasteners at each support spaced a maximum 32" o.c.. The deck should record a Minimum Characteristic Resistance Force (MCRF) of 250 lbf when tested with Duro-Last Auger Fasteners installed through to the deck in

accordance with TAS 105.

System Type D(8): All layers of insulation and base sheet simultaneously attached. Membrane

attached over preliminarily fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Insulation Layer Insulation Fasteners (Table 3) Fastener
Density

Duro-Guard Iso II-A, Duro-Guard Iso II -H, Duro-Guard Iso II-G

Minimum 1.5" thick N/A N/A

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Duro-Last membrane shall be mechanically attached at its 6" tabs, spaced

every 57" with Duro-Last Auger Fasteners & Plates spaced 6" o.c.

maximum, through the insulation and into the deck. Duro-Last Tab Sealer 4725 shall be applied over the tab membrane and to the overlying membrane underside at a rate of 30 ft<sup>2</sup>/gal (two-sided application). 6" wide laps are

sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -52.5 psf. (See General Limitation #7)



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**Deck Description:** 19/32" plywood or wood plank with support at a maximum 24" o.c. attached

with 0.113 inch x 2-3/8 inch ring shank nails fastened 6-inches o.c. at the perimeter and 6-inches o.c. in the field. The deck should record a Minimum Characteristic Resistance Force (MCRF) of 263 lbf when tested with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners installed through to the deck in

accordance with TAS 105.

System Type D(9): All layers of insulation and base sheet simultaneously attached. Membrane

attached over preliminarily fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

**Fire Barrier:** Atlas Roofing Corporation FR-10<sup>®</sup>, ¼" DensDeck, or ¼" SECUROCK **(Optional)** 

One or more layers of any of the following insulations:

Base Insulation Layer (Optional) Insulation Fasteners (Table 3) Fastener

Density

Approved XPS, Approved EPS, Duro-Guard Iso II-A, Duro-Guard Iso III-A,

Duro-Guard Iso IV-A, Duro-Guard Iso II-H, Duro-Guard Iso III-H, Duro-Guard Iso II-G

Minimum <sup>1</sup>/<sub>2</sub>" thick N/A N/A

Top Insulation Layer Insulation Fasteners (Table 3) Fastener Density

**Duro-Fold Underlayment Board** 

Minimum 0.375" thick N/A N/A

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

**Duro-Guard Iso III-H** 

Minimum 1" thick N/A N/A

Duro-Guard Iso II-G, Duro-Guard Iso HD-G, Insulfoam R-Tech Fan Fold

Minimum 0.5" thick N/A N/A

DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board

Minimum 0.25" thick N/A N/A

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Duro-Last membrane shall be mechanically attached at its 3" tabs, spaced

every 60" with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last Poly-Plates or Cleat Plates paced 6" o.c. maximum, through the insulation and into the deck. Laps are sealed with a minimum 1.5" wide heat

weld

Maximum Design

Pressure: -52.5 psf. (See General Limitation #7)

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**Deck Description:** 19/32" plywood or wood plank with support at a maximum 24" o.c. attached

with 0.113 inch x 2-3/8 inch ring shank nails fastened 6-inches o.c. at the perimeter and 6-inches o.c. in the field. The deck should record a Minimum Characteristic Resistance Force (MCRF) of 600 lbf when tested with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners installed through to the deck in

accordance with TAS 105.

System Type D(10): All layers of insulation and base sheet simultaneously attached. Membrane

attached over preliminarily fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Fire Barrier: Atlas Roofing Corporation FR-10®, ¼" DensDeck, or ¼" SECUROCK

(Optional)

One or more layers of any of the following insulations:

Base Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener

Density

Approved XPS, Approved EPS, Duro-Guard Iso II-A, Duro-Guard Iso III-A,

Duro-Guard Iso IV-A, Duro-Guard Iso II-H, Duro-Guard Iso III-H, Duro-Guard Iso III-G Minimum  $^{1}/_{2}$ " thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density

**Duro-Fold Underlayment Board** 

Minimum 0.375" thick N/A N/A

Duro-Guard Iso II-A, Duro-Guard Iso III-A, Duro-Guard Iso IV-A, Duro-Guard Iso II-H,

**Duro-Guard Iso III-H** 

Minimum 1" thick N/A N/A

Duro-Guard Iso II-G, Duro-Guard Iso HD-G, Insulfoam R-Tech Fan Fold

Minimum 0.5" thick N/A N/A

DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board

Minimum 0.25" thick N/A N/A

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Duro-Last membrane shall be mechanically attached at its 6" tabs, spaced

every 120" with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last Poly-Plates or Cleat Plates paced 6" o.c. maximum, through the insulation and into the deck. Laps are sealed with a minimum 1.5" wide heat

weld.

Maximum Design

Pressure: -60 psf. (See General Limitation #7)

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**Deck Type 7I:** Recover, Insulated

**Deck Description:** Min. 22 gage, Type B, Grade 80 steel deck with minimum 1/4" thick steel

supports having a maximum span of 5.5 ft. o.c. Or Min. 20-18 gage, Type B, Grade 80 steel deck with minimum <sup>1</sup>/<sub>4</sub>" thick steel supports having a maximum span of 6 ft. o.c. Deck attached to supports with ITW Buildex Traxx/5 fastener at a maximum spacing of 6" o.c., Sidelaps are attached with Traxx/1 fasteners at

24" o.c.

System Type D(11): All layers of insulation and base sheet simultaneously attached. Membrane

attached over preliminarily fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Insulation Layer Insulation Fasteners Fastener (Table 3) Density

Duro-Guard Iso II-A or Duro-Guard Iso II-H, Duro-Guard III-A, Duro-Guard Iso IV-A,

**H-Shield CG** 

Maximum 1" thick N/A N/A

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Min. 50-mil Duro-Tuff membrane shall be mechanically attached 12" o.c. in

rows spaced 116" o.c. with Duro-Last Cleat Plates and Duro-Last #15 Extra Heavy Duty Drill Point Fastener. Laps are sealed with min. 1.5" wide heat

weld

Maximum Design

Pressure: -45 psf. (See General Limitation #7)



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**Deck Type 7I:** Recover, Insulated

**Deck Description:** Min. 22 gage, Type B, Grade 80 steel deck with minimum 1/4" thick steel

supports having a maximum span of 6 ft. o.c. Deck attached to supports with ITW Buildex Traxx/5 fastener at a maximum spacing of 6" o.c., Sidelaps are

attached with Traxx/1 fasteners at 24" o.c.

System Type D(12): All layers of insulation and base sheet simultaneously attached. Membrane

attached over preliminarily fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Layer Insulation Insulation Fasteners (Table 3) Fastener

Density

Duro-Guard Iso II-A, Duro-Guard Iso II-H, Duro-Guard III-A, Duro-Guard Iso IV-A,

**H-Shield CG** 

Minimum ½" thick N/A N/A

Top Insulation Layer Insulation Fasteners (Table 3) Fastener

Density

DensDeck, SECUROCK Gypsum-Fiber Roof Board, SECUROCK Glass-Mat Roof Board
Minimum ½" thick

N/A

N/A

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Min. 50-mil Duro-Tuff membrane shall be mechanically attached 12" o.c. in

rows spaced 56" o.c. with Duro-Last Cleat Plates and Duro-Last #15 Extra Heavy Duty Drill Point Fastener. Laps are sealed with min. 1.5" wide heat

weld.

Maximum Design

Pressure: -45 psf. (See General Limitation #7)



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**Deck Type 7I:** Recover, Insulated

**Deck Description:** Min. 22 gage, Type B, Grade 80 steel deck with minimum 1/4" thick steel

supports having a maximum span of 6 ft. o.c. Deck attached to supports with ITW Buildex Traxx/5 fastener at a maximum spacing of 6" o.c., Sidelaps are

attached with Traxx/1 fasteners at 24" o.c.

System Type D(13): All layers of insulation and base sheet simultaneously attached. Membrane

attached over preliminarily fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Insulation Layer Insulation Fasteners Fastener (Table 3) Density

Duro-Guard Iso II-A, Duro-Guard Iso II-H, Duro-Guard III-A, Duro-Guard Iso IV-A,

**H-Shield CG** 

Minimum 1" thick N/A N/A

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Min. 50-mil Duro-Tuff membrane shall be mechanically attached 12" o.c. in

rows spaced 56" o.c. with Duro-Last Cleat Plates and Duro-Last #15 Extra Heavy Duty Drill Point Fastener. Laps are sealed with min. 1.5" wide heat

weld.

Maximum Design

Pressure: -45 psf. (See General Limitation #7)



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**Deck Type 7I:** Recover, Insulated

**Deck Description:** Min. 22 gage, Type B, Grade 80 steel deck with minimum <sup>1</sup>/<sub>4</sub>" thick steel

supports having a maximum span of 5.5 ft. o.c. Deck attached to supports with ITW Buildex Traxx/5 fastener at a maximum spacing of 6" o.c., Sidelaps are

attached with Traxx/1 fasteners at 24" o.c.

System Type D(14): All layers of insulation and base sheet simultaneously attached. Membrane

attached over preliminarily fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Layer Insulation Insulation Fasteners (Table 3) Fastener Density

Duro-Guard Iso II-A, Duro-Guard Iso II-H, Duro-Guard III-A, Duro-Guard Iso IV-A,

**H-Shield CG** 

Minimum ½" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density

DensDeck, SECUROCK Gypsum-Fiber Roof Board, SECUROCK Glass-Mat Roof Board Minimum ½" thick N/A N/A

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Min. 50-mil Duro-Tuff membrane shall be mechanically attached 12" o.c. in

rows spaced 116" o.c. with Duro-Last Cleat Plates and Duro-Last #15 Extra Heavy Duty Drill Point Fastener. Laps are sealed with min. 1.5" wide heat

weld.

Maximum Design

Pressure: -45 psf. (See General Limitation #7)



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**Deck Description:** Min. 22 gage, Type B, Grade 80 steel deck with minimum 1/4" thick steel

supports having a maximum span of 6 ft. o.c. Deck attached to supports with ITW Buildex Traxx/5 fastener at a maximum spacing of 6" o.c., Sidelaps are

attached with Traxx/1 fasteners at 24" o.c.

System Type D(15): All layers of insulation are preliminarily attached to roof deck as specified

below. Membrane is mechanically attached to deck through the insulation layers.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

Base Insulation Layer (Optional)

Insulation Fasteners
(Table 3)

Fastener
Density/ft²

**Approved XPS or Approved EPS** 

Minimum ½" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

Duro-Guard Iso II-A, Duro-Guard Iso II-H, Duro-Guard III-A, Duro-Guard Iso III-H, ENRGY 3, H-Shield, ISO 95+ GL, ACFoam II, ACFoam III, Duro-Guard Iso IV-A, ACFoam IV,

**Duro-Guard Iso II-G** 

Minimum 1.5" thick 1, 2, 3, 10 1:6.4 ft<sup>2</sup>

Note: Insulation layers above shall be mechanically attached with preliminary fastening as specified above. All Insulation panels shall also be mechanically fastened along with the roof membrane as specified below. See Roofing Application Standard RAS 117 for fastening details.

Vapor Barrier: (Optional) Any UL or FM approved vapor barrier.

Fire Barrier: (Optional) Atlas Roofing Corporation FR-10<sup>®</sup>, FR-50<sup>®</sup>, ½" Dens Deck, ½"

thick UL Classification Type X Gypsum with a moisture resistant facer and core or a second sheet of barrier board may be used over the insulation (see

General Limitation #1).

Membrane with 60" tabs: Duro-Last® membrane shall be mechanically attached at its 3" tabs, spaced

every 60" with Duro-Last fasteners and Duro-Last Poly-plates® or Duro-Last Cleat Plates spaced 12" o.c. maximum, through the insulation and into

the deck. Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -45 psf. (See General Limitation #7)



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**Deck Description:** Min. 22 gage, Type B, Grade 80 steel deck with minimum 1/4" thick steel

supports having a maximum span of 6 ft. o.c. Deck attached to supports with ITW Buildex Traxx/5 fastener at a maximum spacing of 6" o.c., Sidelaps are

attached with Traxx/1 fasteners at 24" o.c.

System Type D(16): All layers of insulation are preliminarily attached to roof deck as specified

below. Membrane is mechanically attached to deck through the insulation layers.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

Base Insulation Layer (Optional)

Insulation Fasteners Fastener
(Table 3)

Density/ft²

**Approved XPS or Approved EPS** 

Minimum ½" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Fastener

Duro-Guard Iso II-A, Duro-Guard Iso II-H, Duro-Guard III-A, Duro-Guard Iso III-H, ENRGY 3, H-Shield, ISO 95+ GL, ACFoam II, or ACFoam III, Duro-Guard Iso IV-A, ACFoam IV,

**Duro-Guard Iso II-G** 

Minimum 1.5" thick 1, 2. 3. 10 1:6.4 ft<sup>2</sup>

Note: Insulation layers above shall be mechanically attached with preliminary fastening as specified above. All Insulation panels shall also be mechanically fastened along with the roof membrane as specified below. See Roofing Application Standard RAS 117 for fastening details.

Vapor Barrier: (Optional) Any UL or FM approved vapor barrier.

Fire Barrier: (Optional) Atlas Roofing Corporation FR-10<sup>®</sup>, FR-50<sup>®</sup>, <sup>1</sup>/<sub>4</sub>" DensDeck, <sup>1</sup>/<sub>2</sub>"

thick UL Classification Type X Gypsum with a moisture resistant facer and core, Duro-Fold or a second sheet of barrier board may be used over the

insulation (see General Limitation #1).

Membrane with 28" tabs: Duro-Last<sup>®</sup> membrane shall be mechanically attached at its 3" tabs, spaced

every 28" with Duro-Last fasteners with Duro-Last Poly-plates® or Duro-Last Cleat Plates spaced at 18" o.c. maximum, through the insulation and into the deck. Laps are sealed with a minimum 1.5" wide heat weld.

Membrane with 60" tabs: Duro-Last® membrane shall be mechanically attached at its 3" tabs, spaced

every 60" with Duro-Last fasteners with Duro-Last Poly-plates® or Duro-Last Cleat Plates spaced at 6" o.c. maximum, through the insulation and into the deck. Laps are sealed with a minimum 1.5" wide heat weld.

Membrane with 120" tabs: Duro-Last® membrane shall be mechanically attached at its minimum 3"

tabs, spaced every 120" with Duro-Last fasteners with Duro-Last Polyplates® or Duro-Last Cleat Plates spaced at 6" o.c. maximum, through the insulation and into the deck. Laps are sealed with a minimum 1.5" wide heat

weld.

Maximum Design

Pressure: -52.5 psf. (See General Limitation #7)

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**Deck Description:** Minimum 22 gage, steel deck attached to supports having a maximum span of 6

ft. o.c. The deck should record a Minimum Characteristic Resistance Force (MCRF) of 450 lbf when tested with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners installed through to the deck in accordance with TAS 105.

System Type D(17): All layers of insulation and base sheet simultaneously attached. Membrane

attached over preliminarily fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

| Insulation Layer                                      | Insulation Fasteners<br>(Table 3) | Fastener<br>Density |
|---|-----------------------------------|---------------------|
| Duro-Guard Iso II-H, Duro-Guard Iso III-H, Duro-Guard | Iso II-A, Duro-Guard Iso          | III-A,              |
| Duro-Guard IV-A                                       |                                   |                     |
| Minimum 1" thick                                      | N/A                               | N/A                 |
| Duro-Guard Iso HD-G                                   |                                   |                     |
| Minimum 0.5" thick                                    | N/A                               | N/A                 |
| SECUROCK Gypsum-Fiber Roof Board, DensDeck Prime      |                                   |                     |
| Minimum 0.25" thick                                   | N/A                               | N/A                 |

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Duro-Last Membrane with 6-inch wide tabs spaced 120-inches o.c.

shall be mechanically attached with Duro-Last #15 Extra Heavy Duty Drill Point fasteners and Poly-Plates or Cleat Plates fastened along the tab 6-inches o.c.

Minimum 1-inch wide heat weld at lap seams.

Maximum Design

Pressure: -45 psf. (See General Limitation #7)



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**Deck Description:** Minimum 22 ga.steel deck attached to supports having a maximum span of 6 ft.

o.c. The deck should record a Minimum Characteristic Resistance Force (MCRF) of 263 lbf when tested with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners installed through to the deck in accordance with TAS 105.

System Type D(18): All layers of insulation and base sheet simultaneously attached. Membrane

attached over preliminarily fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

**Insulation Laver Insulation Fasteners Fastener** (Table 3) **Density** Duro-Guard Iso II-H, Duro-Guard Iso III-H, Duro-Guard Iso II-A, Duro-Guard Iso III-A, **Duro-Guard IV-A** Minimum 1" thick N/A N/A **Duro-Guard Iso HD-G** Minimum 0.5" thick N/A N/A SECUROCK Gypsum-Fiber Roof Board, DensDeck Prime Minimum 0.25" thick N/A N/A

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Membrane: Duro-Last Membrane with 6-inch wide tabs spaced 60-inches o.c.

shall be mechanically attached with Duro-Last #15 Extra Heavy Duty Drill Point fasteners and Poly-Plates or Cleat Plates fastened along the tab 6-inches o.c.

Minimum 1-inch wide heat weld at lap seams.

Maximum Design

Pressure: -52.5 psf. (See General Limitation #7)



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**Deck Type 7I:** Recover, Insulated

**Deck Description:** Structural Concrete or Minimum 22 gage, Type B, Grade 80 steel deck attached

with ITW Buildex Traxx/4 or Traxx/5 fastener at a maximum spacing of 6" o.c.,

to minimum 1/4" thick steel supports having a maximum span of 6 ft. o.c.

Sidelaps are attached with Traxx/1 fasteners at 24" o.c.

System Type D(19): All layers of insulation are preliminarily attached to roof deck as specified

below. Membrane is mechanically attached to deck through the insulation

layers.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft<sup>2</sup>

AC Foam II, Duro-Guard Iso II-A, ENRGY-3, ENRGY-3 25 PSI, Duro-Guard Iso II-G, Duro-Guard II-H, Duro-Guard HD-G

Minimum 1½" thick N/A N/A

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Vapor Barrier: (Optional) Any UL or FM approved vapor barrier.

Fire Barrier: (Optional) Atlas Roofing Corporation FR-10®, ¼" DensDeck, ½" thick UL

Classification Type X Gypsum with a moisture resistant facer and core, or a second sheet of barrier board may be used over the insulation (see General

Limitation #1).

Membrane: Duro-Last membrane, 60" tabs, shall be mechanically attached at its 3" tabs,

spaced every 60" with Duro-Last fasteners and Duro-Last Poly-plates, or Duro-Last Fluted Concrete Nails (for structural concrete only) spaced 12" o.c. minimum, through the insulation and into the deck. Laps are sealed with a

minimum 1.5" wide heat weld.

Maximum Design

Pressure: -45 psf. (See General Limitation #7)

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**Deck Type 7I:** Recover, Insulated

**Deck Description:** 19/32" plywood or wood plank with supports at a maximum 24" o.c. attached 6"

o.c. with 8d common nails to support members. The wood deck shall record a Minimum Characteristic Resistance Force (MCRF) of 225 lbf when tested with Duro-Last #14 HD Fasteners in accordance with TAS 105. The existing roof

shall contain minimum 1" thick insulation.

System Type D(20): All layers of insulation are preliminarily attached to roof deck as specified

below. Membrane is mechanically attached to deck through the insulation

layers.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

| Insulation Layer   | Insulation Fasteners | Fastener                |
|--|----------------------|-------------------------|
|  | (Table 3)            | Density/ft <sup>2</sup> |
| AC Foam II, Duro-Guard Iso II-A, ENRGY-3, ENRGY-3 25 PSI, Duro-Guard Iso II-G, |                      |                         |
| Duro-Guard II-H, Duro-Guard HD-G   |                      |                         |
| Minimum 1-1/2" thick   | N/A                  | N/A                     |
| SECUROCK Gypsum-Fiber Roof Board   |                      |                         |
| Minimum ½" thick   | N/A                  | N/A                     |

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Duro-Last membrane shall be mechanically attached at its 3" tabs, spaced every

60", with Duro-Last #14 HD fasteners and Duro-Last Poly-Plates spaced a Maximum of 6" o.c. through the insulation and into the deck. Duro-last Tab Sealer 4725 shall be applied over the tab membrane and to the overlying Membrane underside at a rate of 60  $\rm ft^2/gal$ ./ (two-sided application). Laps are

sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -45 psf. (See General Limitation #7)



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**Deck Type 7I:** Recover, Insulated

**Deck Description:** 19/32" plywood or wood plank with supports at a maximum 24" o.c. attached 6"

o.c. with 8d common nails to support members. The wood deck shall record a Minimum Characteristic Resistance Force (MCRF) of 250 lbf when tested with Duro-Last #14 HD Fasteners in accordance with TAS 105. The existing roof

shall contain minimum 1" thick insulation.

System Type D(21): All layers of insulation are preliminarily attached to roof deck as specified

below. Membrane is mechanically attached to deck through the insulation

layers.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

| Insulation Layer                              | <b>Insulation Fasteners</b>    | Fastener                |
|---|--------------------------------|-------------------------|
| •   | (Table 3)                      | Density/ft <sup>2</sup> |
| AC Foam II, Duro-Guard Iso II-A, ENRGY-3, ENR | GY-3 25 PSI, Duro-Guard Iso II | I-G,                    |
| Duro-Guard II-H, Duro-Guard HD-G              |                                |                         |
| Minimum 1-1/2" thick                          | N/A                            | N/A                     |
| SECUROCK Gypsum-Fiber Roof Board              |                                |                         |
| Minimum ½" thick                              | N/A                            | N/A                     |

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane, 57" tabs: Duro-Last membrane shall be mechanically attached at its 6" tabs, spaced every

57", with Duro-Last #14 HD fasteners with Duro-Last 3-inch Metal Plates spaced a maximum of 6" o.c. through the insulation and into the deck. Duro-last Tab Sealer 4725 shall be applied over the tab membrane and to the overlying membrane underside at a rate of 60 ft²/gal./ (two-sided application). Laps are sealed with a minimum 1.5" wide heat weld.

ealed with a minimum 1.3 wide heat wer

or

Duro-Last membrane shall be mechanically attached at its 6" tabs, spaced every 57", with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners with Duro-Last Duro-Last Cleat Plates spaced a maximum of 6" o.c. through the insulation and into the deck. Fasteners are located 2.7-inches from tab edge. Laps are sealed

with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -52.5 psf. (See General Limitation #7)



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**Deck Type 7I:** Recover, Insulated

**Deck Description:** Cementitious wood fiber deck attached to supports spaced a maximum 24" o.c.

with three (3) #15 fasteners and 2-inch diameter steel plates per panel, per support. The CWF deck should record a Minimum Characteristic Resistance Force (MCRF) of 214 lbf when tested with Duro-Last Liquid Auger Fastener through to the deck in accordance with TAS 105. The existing roof shall

contain minimum 1.5" thick insulation.

System Type D(22): All layers of insulation are preliminarily attached to roof deck as specified

below. Membrane is mechanically attached to deck through the insulation

layers.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Insulation Layer Insulation Fasteners Fastener (Table 3) Fastener

AC Foam II, Duro-Guard Iso II-A, ENRGY-3, ENRGY-3 25 PSI, Duro-Guard Iso II-G,

Duro-Guard II-H, Duro-Guard HD-G

Minimum 2" thick N/A N/A

**SECUROCK Gypsum-Fiber Roof Board** 

Minimum ½" thick N/A N/A

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Duro-Last membrane shall be mechanically attached at its 6" tabs, spaced every

57", with Duro-Last Liquid Auger Fasteners spaced a maximum of 6" o.c. through the insulation and into the deck. Laps are sealed with a minimum 1.5"

wide heat weld.

Maximum Design

Pressure: -45 psf. (See General Limitation #7)



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**Deck Description:** Cementitious wood fiber deck attached to supports spaced a maximum 24" o.c.

with three (3) #15 fasteners and 2-inch diameter steel plates per panel, per support. The CWF deck should record a Minimum Characteristic Resistance Force (MCRF) of 285 lbf when tested with Duro-Last Liquid Auger Fastener through to the deck in accordance with TAS 105. The existing roof shall

contain minimum 1.5" thick insulation.3

System Type D(23): All layers of insulation are preliminarily attached to roof deck as specified

below. Membrane is mechanically attached to deck through the insulation

layers.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Insulation Layer (Table 3) Fastener (Table 3) Density/ft²

AC Foam II, Duro-Guard Iso II-A, ENRGY-3, ENRGY-3 25 PSI, Duro-Guard Iso II-G,

Duro-Guard II-H, Duro-Guard HD-G

Minimum 2" thick N/A N/A

SECUROCK Gypsum-Fiber Roof Board

Minimum ½" thick N/A N/A

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Duro-Last membrane shall be mechanically attached at its 6" tabs, spaced every

57", with Duro-Last Liquid Auger Fasteners spaced a maximum of 6" o.c. through the insulation and into the deck. Duro-last Tab Sealer 4725 shall be applied over the tab membrane and to the overlying membrane underside at a rate of 60 ft²/gal./ (two-sided application). Laps are sealed with a minimum

1.5"

wide heat weld.

Maximum Design

Pressure: -60 psf. (See General Limitation #7)



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**Deck Type 7I:** Recover, Insulated

**Deck Description:** Structural Concrete or Minimum 22 gage, type B, Grade 80 Steel attached to

supports having a maximum span of 6 ft. o.c. The deck should record a

Minimum Characteristic Resistance Force (MCRF) of 498 lbf when tested with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners (steel) or Duro-Last #14 Concrete Screws or Duro-Last Fluted Concrete Nails (concrete) in accordance with TAS 105. The existing roof shall contain minimum 1" thick insulation.

System Type D(24): All layers of insulation are preliminarily attached to roof deck as specified

below. Membrane is mechanically attached to deck through the insulation

layers.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Insulation Layer (Table 3) Fastener (Table 3) Density/ft²

AC Foam II, Duro-Guard Iso II-A, ENRGY-3, ENRGY-3 25 PSI, Duro-Guard Iso II-G,

Duro-Guard II-H, Duro-Guard HD-G

Minimum 1-1/2" thick N/A N/A

SECUROCK Gypsum-Fiber Roof Board

Minimum ½" thick N/A N/A

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Duro-Last membrane shall be mechanically attached at its 6" tabs, spaced every

57", with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners(steel), Duro-Last #14 Concrete Screws or Duro-Last Concrete Nails (concrete), and Duro-Last 3-inch Metal Plates spaced a maximum of 6" o.c. through the insulation and into the deck. Duro- Last Tab Sealer 4725 shall be applied over the tab membrane and to the overlying membrane underside at a rate of 60 ft²/gal./ (two-sided application). Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -105 psf. (See General Limitation #7)



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**Deck Type 7I:** Recover, Insulated

**Deck Description:** Structural Concrete or Minimum 22 gage, type B, Grade 80 Steel attached to

supports having a maximum span of 6 ft. o.c. The deck should record a

Minimum Characteristic Resistance Force (MCRF) of 315 lbf when tested with Duro-Last #14 HD Fasteners (steel) or Duro-Last #14 Concrete Screws or Duro-Last Fluted Concrete Nails (concrete) in accordance with TAS 105. The existing

roof shall contain minimum 1" thick insulation.

System Type D(25): All layers of insulation are preliminarily attached to roof deck as specified

below. Membrane is mechanically attached to deck through the insulation

layers.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

| Insulation Layer                              | <b>Insulation Fasteners</b>     | Fastener                |
|---|---------------------------------|-------------------------|
|   | (Table 3)                       | Density/ft <sup>2</sup> |
| AC Foam II, Duro-Guard Iso II-A, ENRGY-3, ENR | GY-3 25 PSI, Duro-Guard Iso II- | G,                      |
| Duro-Guard II-H, Duro-Guard HD-G              |                                 |                         |
| Minimum 1-1/2" thick                          | N/A                             | N/A                     |
| SECUROCK Gypsum-Fiber Roof Board              |                                 |                         |
| Minimum 1/2" thick                            | N/A                             | N/A                     |

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Duro-Last membrane shall be mechanically attached at its 3" tabs, spaced every

84" with Duro-Last #14 HD Fasteners (steel) or Duro-Last #14 Concrete Screws or Duro-Last Fluted Concrete Nails (concrete) with Duro-Last Poly-plates spaced 6" o.c. maximum, through the insulation and/or LWC and into the deck.

Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -45 psf. (See General Limitation #7)



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**Deck Type 7I:** Recover, Insulated

**Deck Description:** Structural Concrete or Minimum 22 gage, type B, Grade 80 Steel attached to

supports having a maximum span of 6 ft. o.c. The deck should record a

Minimum Characteristic Resistance Force (MCRF) of 420 lbf when tested with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners (steel) or Duro-Last #14 Concrete Screws or Duro-Last Fluted Concrete Nails (concrete) in accordance with TAS 105. The existing roof shall contain minimum 1" thick insulation.

System Type D(26): All layers of insulation are preliminarily attached to roof deck as specified

below. Membrane is mechanically attached to deck through the insulation

layers.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

| Insulation Layer                              | <b>Insulation Fasteners</b>     | Fastener                |
|---|---------------------------------|-------------------------|
| ·   | (Table 3)                       | Density/ft <sup>2</sup> |
| AC Foam II, Duro-Guard Iso II-A, ENRGY-3, ENR | GY-3 25 PSI, Duro-Guard Iso II- | G,                      |
| Duro-Guard II-H, Duro-Guard HD-G              |                                 |                         |
| Minimum 1-1/2" thick                          | N/A                             | N/A                     |
| SECUROCK Gypsum-Fiber Roof Board              |                                 |                         |
| Minimum 1/3" thick                            | N/A                             | N/A                     |

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Duro-Last membrane shall be mechanically attached at its 3" tabs, spaced every

84" with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners (steel) or Duro-Last #14 Concrete Screws or Duro-Last Fluted Concrete Nails (concrete) with Duro-Last Cleat Plates or OMG 2-3/8" Eyehook Seam Plates spaced 6" o.c. maximum, through the insulation and/or LWC into the deck. Laps are sealed

with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -60 psf. (See General Limitation #7)



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**Deck Type 7I:** Recover, Insulated

**Deck Description:** Structural Concrete or Minimum 22 gage, type B, Grade 80 Steel attached to

supports having a maximum span of 6 ft. o.c. The deck should record a Minimum Characteristic Resistance Force (MCRF) of 825 lbf when tested with

Duro-Last #15 Extra Heavy Duty Drill Point Fasteners (steel) or Duro-Last #14 Concrete Screws or Duro-Last Fluted Concrete Nails (concrete) in accordance with TAS 105. The existing roof shall contain minimum 1" thick insulation.

System Type D(27): All layers of insulation are preliminarily attached to roof deck as specified

below. Membrane is mechanically attached to deck through the insulation

layers.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

| Insulation Layer   | <b>Insulation Fasteners</b> | Fastener                |
|--|-----------------------------|-------------------------|
|  | (Table 3)                   | Density/ft <sup>2</sup> |
| AC Foam II, Duro-Guard Iso II-A, ENRGY-3, ENRGY-3 25 PSI, Duro-Guard Iso II-G, |                             |                         |
| Duro-Guard II-H, Duro-Guard HD-G   |                             |                         |
| Minimum 1-1/2" thick   | N/A                         | N/A                     |
| SECUROCK Gypsum-Fiber Roof Board   |                             |                         |
| Minimum ½" thick   | N/A                         | N/A                     |

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Duro-Last membrane shall be mechanically attached at its 6" tabs, spaced every

120" with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners (steel), Duro-Last #14 Concrete Screws or Duro-Last Fluted Concrete Nails (concrete) and Duro-Last 3-inch Metal Plates spaced 6" o.c. maximum, through the insulation and into the deck. Duro- Last Tab Sealer 4725 shall be applied over the tab membrane and to the overlying membrane underside at a rate of 60 ft²/gal./ (two-sided application). Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -82.5 psf. (See General Limitation #7)



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**Deck Type 7I:** Recover, Insulated

**Deck Description:** Structural Concrete or Minimum 22 gage, type B, Grade 80 Steel attached to

supports having a maximum span of 6 ft. o.c. The deck should record a

Minimum Characteristic Resistance Force (MCRF) of 367 lbf when tested with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners (steel) or Duro-Last #14 Concrete Screws or Duro-Last Fluted Concrete Nails (concrete) in accordance with TAS 105. The existing roof shall contain minimum 1" thick insulation.

System Type D(28): All layers of insulation are preliminarily attached to roof deck as specified

below. Membrane is mechanically attached to deck through the insulation

layers.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Insulation Layer (Table 3) Fastener (Table 3) Density/ft²

AC Foam II, Duro-Guard Iso II-A, ENRGY-3, ENRGY-3 25 PSI, Duro-Guard Iso II-G,

Duro-Guard II-H, Duro-Guard HD-G

Minimum 1-1/2" thick N/A N/A

SECUROCK Gypsum-Fiber Roof Board

Minimum ½" thick N/A N/A

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Duro-Last membrane shall be mechanically attached at its 6" tabs, spaced every

57" with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners (steel) or Duro-Last #14 Concrete Screws or Duro-Last Fluted Concrete Nails (concrete) with Duro-Last 3-inch Metal Plates spaced 12" o.c. maximum, through the insulation and/or LWC and into the deck. Duro-Last Tab Sealer 4725 shall be applied over the tab membrane and to the overlying membrane underside at a rate of 60 ft²/gal (two-sided application). Laps are sealed with a minimum 1.5" wide heat

weld.

Maximum Design

Pressure: -52.5 psf. (See General Limitation #7)



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**Deck Description:** Structural Concrete or Minimum 22 gage, type B, Grade 80 Steel attached to

supports having a maximum span of 6 ft. o.c. The deck should record a

Minimum Characteristic Resistance Force (MCRF) of 367 lbf when tested with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners (steel) or Duro-Last #14 Concrete Screws or Duro-Last Fluted Concrete Nails (concrete) in accordance with TAS 105. The existing roof shall contain minimum 1" thick insulation.

System Type D(29): All layers of insulation are preliminarily attached to roof deck as specified

below. Membrane is mechanically attached to deck through the insulation

layers.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

| Insulation Layer   | <b>Insulation Fasteners</b> | Fastener                |
|--|-----------------------------|-------------------------|
|  | (Table 3)                   | Density/ft <sup>2</sup> |
| AC Foam II, Duro-Guard Iso II-A, ENRGY-3, ENRGY-3 25 PSI, Duro-Guard Iso II-G, |                             |                         |
| Duro-Guard II-H, Duro-Guard HD-G   |                             |                         |
| Minimum 1-1/2" thick   | N/A                         | N/A                     |
| SECUROCK Gypsum-Fiber Roof Board   |                             |                         |
| Minimum 1/2" thick   | N/A                         | N/A                     |

Note: All layers of insulation and membrane shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Membrane: Duro-Last membrane shall be mechanically attached at its 6" wide tabs, spaced

every 84" o.c. with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners (steel) or Duro-Last #14 Concrete Screws or Duro-Last Fluted Concrete Nails (concrete) with Duro-Last 3-inch Metal Plates spaced 6" o.c. maximum, through the insulation and/or LWC and into the deck. Duro-Last Tab Sealer 4725 shall be applied over the tab membrane and to the overlying membrane underside at a rate of 60 ft²/gal (two-sided application). Laps are sealed with a minimum 1.5"

wide heat weld.

Maximum Design

Pressure: -52.5 psf. (See General Limitation #7)



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**Deck Type 7:** Recover, Non-insulated

**Deck Description:** Elastizell cellular lightweight concrete cast with Zell-Fibers in the mix, wet cast

density of 46-50 pcf, 350 psi compressive strength. Slurry coat, followed by 1" thick EPS Holey Board placed into the wet concrete, followed by a minimum 2" thick top coat of Elastizell cellular lightweight concrete. 22 ga, Type B, vented steel deck attached to supports at 7 ft. spans using ITW Buildex Traxx/5 fastners spaced 6" o.c. (each flue). Side laps attached with Buildex Traxx/1 fasteners spaced 20" o.c. The deck should record a Minimum Characteristic Resistance Force (MCRF) of 85 lbf when tested with Twin Loc-Nails installed through to the

deck in accordance with TAS 105.

**System Type E(1):** Anchor sheet mechanically fastened to LWC deck subsequent membrane adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Anchor Sheet: JM PermaPly 28 or GAFGLAS #75 base sheet mechanically fastened with Twin

Loc-Nails spacing of 7.5" o.c. at the 3" side laps and 7.5" o.c. in two equally

spaced staggered center rows.

Membrane: Duro-Last Duro-Fleece Plus membrane fully adhered with Duro-Fleece CR-20

Adhesive applied using a splatter pattern at a rate of 7 lbs./square. Laps are

sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -67.5 psf. (See General Limitation #7)



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**Deck Type 7:** Recover, Non-insulated

**Deck Description:** 19/32" plywood or wood plank with support at a maximum 24" o.c. attached with

¼ inch x 2 inch self-tapping screws, staggered, 12-inches o.c. through the steel perimeter. The wood supports should record a Minimum Characteristic Resistance Force (MCRF) of 525 lbf when tested with Duro-Last #14 HD Fasteners installed through to the wood support in accordance with TAS 105.

**System Type E(2):** Membrane mechanically attached through optional barriers to structural deck.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier: (Optional) Any UL or FM approved vapor barrier.

Fire Barrier: (Optional) Atlas Roofing Corporation FR-10<sup>®</sup>, <sup>1</sup>/<sub>4</sub>" DensDeck, <sup>1</sup>/<sub>4</sub>"

SECUROCK, ½" thick UL Classification Type X Gypsum with a moisture resistant facer and core, or a second sheet of barrier board may be used over

the deck (see General Limitation #1).

Membrane: Duro-Last membrane shall be **mechanically attached into the wood** 

**supports** at the 6" tabs, spaced every 120" with Duro-Last #14 HD Fasteners and Duro-Last Poly-Plates or Cleat-Plates spaced 6" o.c. maximum. Laps are sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -52.5 psf. (See General Limitation #7)



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Single Ply, PVC **Membrane Type:** 

Deck Type 7: Recover, Non-insulated

**Deck Description:** 19/32" plywood or wood plank with support at a maximum 24" o.c. attached with

½ inch x 2 inch self-tapping screws, staggered, 12-inches o.c. through the steel

perimeter. The wood supports should record a Minimum Characteristic Resistance Force (MCRF) of 263 lbf when tested with Duro-Last #14 HD Fasteners installed through to the wood support in accordance with TAS 105.

System Type E(3): Membrane mechanically attached through optional barriers to structural deck.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier: (Optional) Any UL or FM approved vapor barrier.

Fire Barrier: (Optional) Atlas Roofing Corporation FR-10®, ¼" DensDeck, ¼"

> SECUROCK, ½" thick UL Classification Type X Gypsum with a moisture resistant facer and core, or a second sheet of barrier board may be used over

the deck (see General Limitation #1).

Membrane: Duro-Last membrane shall be **mechanically attached into the wood** 

> **supports** at the 3" tabs, spaced every 60" with Duro-Last #14 HD Fasteners and Duro-Last Poly-Plates or Cleat-Plates spaced 6" o.c. maximum. Laps are

sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -52.5 psf. (See General Limitation #7)



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**Deck Type 7:** Recover, Non-insulated

**Deck Description:** 19/32" plywood or wood plank with support at a maximum 24" o.c. attached with

1/4 inch x 2 inch self-tapping screws, staggered, 12-inches o.c. through the steel

perimeter. The wood supports should record a Minimum Characteristic Resistance Force (MCRF) of 825 lbf when tested with Duro-Last #14 HD Fasteners installed through to the wood support in accordance with TAS 105.

**System Type E(4):** Membrane mechanically attached through optional barriers to structural deck.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier: (Optional) Any UL or FM approved vapor barrier.

Fire Barrier: (Optional) Atlas Roofing Corporation FR-10<sup>®</sup>, <sup>1</sup>/<sub>4</sub>" DensDeck, <sup>1</sup>/<sub>4</sub>"

SECUROCK, ½" thick UL Classification Type X Gypsum with a moisture resistant facer and core, or a second sheet of barrier board may be used over

the deck (see General Limitation #1).

Membrane: Duro-Last membrane shall be **mechanically attached into the wood** 

supports at the 6" tabs, spaced every 120" with Duro-Last #14 HD

Fasteners and Duro-Last Cleat-Plates spaced 6" o.c. maximum. Duro-Last Tab Sealer 4725 shall be applied over the tab membrane and to the overlying membrane underside at a rate of 30 ft<sup>2</sup>/gal (two-sided application). Laps are

sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -82.5 psf. (See General Limitation #7)



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Single Ply, PVC **Membrane Type:** 

Deck Type 7: Recover, Non-insulated

**Deck Description:** Minimum 22 ga. steel deck attached to supports having a maximum span of 6 ft.

o.c. The deck should record a Minimum Characteristic Resistance Force

(MCRF) of 450 lbf when tested with Duro-Last #15 Extra Heavy Duty Drill Point

Fasteners installed through to the deck in accordance with TAS 105.

Membrane mechanically fastened to existing roof system **System Type E(5):** 

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Duro-Last Membrane with 6 inch wide tabs spaced 120 inches o.c. shall be Membrane:

fastened through existing roof into the deck with the fastener and

plate specified below.

Fastening: Membrane shall be fastened with Duro-Last #15 Extra Heavy Duty Drill

Point Fastener and Poly-Plates or Cleat Plates fastened along the tab 6

inches o.c. Minimum 1-inch wide factory weld at the lap seams

Maximum Design

Pressure: -45 psf. (See General Limitation #9)

Single Ply, PVC **Membrane Type:** 

Deck Type 7: Recover, Non-insulated

**Deck Description:** Minimum 22 ga. steel deck attached to supports having a maximum span of 6 ft.

o.c. The deck should record a Minimum Characteristic Resistance Force

(MCRF) of 263 lbf when tested with Duro-Last #15 Extra Heavy Duty Drill Point

Fasteners installed through to the deck in accordance with TAS 105.

Membrane mechanically fastened to existing roof system **System Type E(6):** 

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Membrane: Duro-Last Membrane with 6 inch wide tabs spaced 60 inches

o.c. shall be fastened through existing roof into the deck with the fastener and

plate specified below.

Membrane shall be fastened with Duro-Last #15 Extra Heavy Duty Drill Fastening:

Point Fastener and Poly-Plates or Cleat Plates fastened along the tab 6 inches o.c.

Minimum 1-inch wide factory weld at the lap seams.

Maximum Design

Pressure: -52.5 psf. (See General Limitation #9)



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Single Ply, PVC **Membrane Type:** 

Deck Type 7: Recover, Non-insulated

The cementitious wood fiber panels attached to supports spaced maximum 4-ft **Deck Description:** 

o.c. with OMG Purlin fasteners with 2-inch metal plates, each panel is secured

with three (3) fasteners at each support. The CWF deck should record a

Minimum Characteristic Resistance Force (MCRF) of 338 lbf when tested with Duro-Last Auger Fasteners installed with Dow EnerFoam (See Fastening below

for details) through to the deck in accordance with TAS 105.

System Type E(7): Membrane mechanically fastened to existing roof system

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Duro-Last Membrane with 1 inch wide weld at lap Membrane:

seams shall be fastened through existing roof into the deck with the fastener and

plate specified below.

Duro-Last Auger Fastener with 2-inch diameter Auger Plates shall be installed 6" Fastening:

o.c. in rows spaced a maximum 60" o.c. The fastener shall be embedded a

minimum 2-inches into the deck as follows: 1) 7/16" pilot hole drilled to a depth of 2.5"

2) Dow EnerFoam dispensed into the hole for two (2) full seconds using

application gun.

3) Fastener installed into the hole within 20-40 seconds after dispensing foam

Fastener rows shall be covered with a 10" wide strip for Duro-Last Membrane

and heat welded a minimum 1.5" along each edge to the roof membrane.

Maximum Design

Pressure: -67.5 psf. (See General Limitation #9)



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**Deck Type 7:** Recover, Non-insulated

**Deck Description:** The cementitious wood fiber panels attached to supports spaced maximum 4-ft

o.c. with OMG Purlin fasteners with 2-inch metal plates, each panel is secured

with three (3) fasteners at each support. The CWF deck should record a Minimum Characteristic Resistance Force (MCRF) of 540 lbf when tested with Duro-Last Auger Fasteners installed with Dow EnerFoam (See Fastening below

for details) through to the deck in accordance with TAS 105.

**System Type E(8):** Membrane mechanically fastened to existing roof system

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Membrane: Duro-Last Membrane with 1 inch wide weld at lap

seams shall be fastened through existing roof into the deck with the fastener and

plate specified below.

Fastening: Duro-Last Auger Fastener with 2-inch diameter Auger Plates shall be installed 6"

o.c. in rows spaced a maximum 96" o.c. The fastener shall be embedded a

minimum 2-inches into the deck as follows: 1) 7/16" pilot hole drilled to a depth of 2.5"

2) Dow EnerFoam dispensed into the hole for two (2) full seconds using

application gun

3) Fastener installed into the hole within 20-40 seconds after dispensing foam

Fastener rows shall be covered with a 10" wide strip for Duro-Last Membrane

and heat welded a minimum 1.5" along each edge to the roof membrane.

Maximum Design

Pressure: -67.5 psf. (See General Limitation #9)



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**Deck Type 7:** Recover, Non-insulated

**Deck Description:** Smooth BUR, Granule SBS, Granule APP, or Granule BUR

**System Type F(1):** Membrane directly adhered to existing roof system

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Membrane: Duro-Last Duro-Fleece Plus membrane fully adhered with Duro-Fleece CR-20

Adhesive applied using a splatter pattern at a rate of 8 lbs./square. Laps are

sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -370 psf. (See General Limitation #9)

**Membrane Type:** Single Ply, PVC

**Deck Type 7:** Recover, Non-insulated

**Deck Description:** Smooth BUR, Granule SBS, Granule APP, or Granule BUR

**System Type F(2):** Membrane directly adhered to existing roof system

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Membrane: Duro-Last Duro-Fleece membrane fully adhered with Duro-Fleece CR-20

Adhesive applied using a splatter pattern at a rate of 8 lbs./square. Laps are

sealed with a minimum 1.5" wide heat weld.

Maximum Design

Pressure: -120 psf. (See General Limitation #9)



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## **RECOVER SYSTEM LIMITATIONS:**

1. All System Limitations and General Limitations shall apply. See specific deck type Notice of Acceptance for deck type System Limitations.

## **GENERAL LIMITATIONS:**

- 1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
- 2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
- 3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
- 4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each sidelap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.

## Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf. .

- 5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
- 6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
- 7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117 and/or RAS 137. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant (When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)
- 8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform with Roofing Application Standard RAS 111 and applicable wind load requirements.
- 9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). (When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)
- 10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

## END OF THIS ACCEPTANCE

MIAMI-DADE COUNTY
APPROVED

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